

PROCESSOR

Products, News & Information Data Centers Can Trust. Since 1979

In This Issue...

COVER FOCUS Top Data Center Projects

We take an in-depth look at four popular data center projects, providing you with insight and tips to get started.

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Top Things You Should Know

What are the key things every data center/IT manager should know when it comes to today's "hot" data center topics of VoIP, buying used equipment, hardware and software life cycles, and more? Find out starting on page 24.



TECH & TRENDS

■ Data centers are increasingly implementing strategies targeted toward environmental awareness, but little attention has been paid to **water consumption**. Some experts believe that's due to change, and soon....**page 1**

■ Like miniature freight trains, **netbooks** are making deep inroads into the PC market, forcing enterprises to consider these mobile marvels. But while netbooks have found favor with consumers, their viability in business settings remains questionable**page 32**

■ The advancing green agenda means **sustainability plans** could soon become organizational goals....**page 33**

■ **Instant messaging** is becoming one of the most popular ways to communicate both within the enterprise and to outside clients. But IM doesn't come without its own set of security and compliance issues**page 34**

■ **Virtualization**, a common feature in today's data center, is coming to a desktop near you; however, just what form it takes is still debatable**page 35**

■ When employees leave a job, none of them should have access to proprietary data and organizational information. What do data center and IT managers at SMEs need to be doing to make sure they have **access management** under control?**page 36**

NEWS

■ A recent survey found that more than 50% of health-care providers believe the billions of dollars for **healthcare IT** in the American Recovery and Reinvestment Act will not be sufficient to encourage HIT adoption.....**page 2**

■ **Oracle** posted first quarter earnings that beat analysts' expectations**page 3**

■ A recent NPD Group survey reveals that **netbook owners** are more likely to be disappointed with their machines than those who bought larger and more expensive laptops.**page 3**

■ The download program for the Release Candidate of Microsoft's newest operating system, **Windows 7**, will close Aug. 15.**page 3**

The Processor.com home page is frequently updated with new articles and hardware news to help you keep current. Visit www.processor.com today.

Improving Your Floor Plan

A Cleaner Data Center Layout Can Make For A Cleaner Budget

by Carmi Levy

• • •

AS DATA CENTER MANAGERS LOOK for low-risk opportunities to improve power and cooling costs and reduce operational risk, floor plan improvements are emerging as great near-term projects that don't require major up-front capital investment.

"With proper planning, you can get yourself a more efficient layout that makes the best possible use of your electrical and mechanical infrastructure," says Gerry Gallagher, president of Fortress International Group (www.thefigi.com), a leading provider of critical facility engineering and management.

Key Points

- Inefficient layout drives excessive power and cooling use, which drives costs and can raise equipment failure rates.
- Investments in more efficient server and rack architectures can drive data center operational cost ROI.
- Designing a new floor plan provides an ideal opportunity for IT to work closely with facilities to improve operational efficiency.



"Approximately 30 to 35% of the average facility's operations and management budget is the cost of power. It's a big number

that will only get bigger in the future," Gallagher says. "So you can't underestimate
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Stay Afloat With Conservation

Focusing On Water Usage Now Could Pay Off In The Long Run

by Elizabeth Millard

• • •

INCREASINGLY, data centers are implementing strategies targeted toward environmental awareness—lower power usage, recycled equipment, more intelligent cooling—but little attention has been paid to water consumption. However, some experts believe that's due to change, and soon.

Larger enterprises are starting to be cognizant of their water use and its larger impact, particularly on municipal water systems, and are employing products and technologies designed to lower water use or

at least make the water safe to be streamed back into reservoirs.

Although small to mid-sized enterprises aren't likely thinking of water use and conservation yet, it's a good time to at least get it on the radar, notes Mark Skarulis of Premiere Water Service (www.pwservice.net).

"For SMEs, if they're looking into the future of operations, they should care about water," he says. "Especially if they're in a geographic region where new fees are being created by cities to make up for water shortages. Very soon, data centers are going to be noticing their water bills."

Key Points

- Water consumption will become a larger issue in the future, particularly as municipal systems look to conservation.
- Data center managers should start thinking strategically now by creating a water management program.
- Call in experts such as utility company reps or cooling engineers to develop a baseline of consumption.

Building Awareness

Water consumption, even at larger companies, hasn't gotten the attention that's needed, believes Rick Cockrell, CTO at Core4 Systems (www.core4sys.com), a data center cooling vendor.

He thinks that consumption has been misunderstood on both the facility level and the power plant level, noting that 20% of a typical water-cooled facility's total water use is at the facility and 80% at a power plant. "So, if the facility could cut their energy use by 20%, it would mitigate all of their facility's

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Judge Permits Apple Suit To Continue

Judge Robert Mark of the Southern District of Florida U.S. Bankruptcy Court has lifted the stay on Apple’s lawsuit against Psystar, which will allow the computer maker to continue its copyright infringement case. In July 2008, Apple sued Psystar for selling illegal versions of Mac OS X on its computers; Psystar responded by filing for bankruptcy to authorize an automatic stay on legal procedures, and Apple fought to lift the stay by accusing Psystar of stalling to avoid legal proceedings. If the results of the lawsuit are in favor of Apple, it would give the company more leverage against other clone companies.



offered the same capabilities. Among the 18- to 24-year-old target market, 65% say that netbooks didn’t meet their expectations. Just 27% say their netbooks exceeded performance expectations. About 60% of those surveyed cite portability as the most important feature.

Social Technology Evangelist Departs Google

Kevin Marks, a main force behind Google’s endeavors in social networking, is leaving the Internet company. In the fall of 2007, when Marks helped launch Google’s OpenSocial, he became an evangelist of open Web standards. While at Google, Marks also worked on Social Graph API and helped promote OpenAuth and OpenID. Marks says his work is done at the company, saying, “Over the last two years, we have built out the infrastructure for the social Web. Now it is time to build things on that infrastructure.” He says projects related to the social Web and activity streams are what he is working on now.

Gartner: Semiconductor Equipment Outlook Improving

Spending on semiconductor capital equipment has bottomed out, according to Gartner, and should begin to improve for the remainder of this year and into next year. According to its latest report on the semiconductor equipment industry, Gartner says worldwide semiconductor capital spending should reach \$24.3 billion this year, down about 45% over last year’s \$44 billion. The 2010 forecast, however, shows spending will reach \$29.4 billion, up about 21%. Specifically, Gartner says spending on wafer fab and packaging and assembly equipment could both decrease by about 47% this year. Klaus Rinnen, a Gartner managing vice president, says the industry has responded to the downturn as it should by eliminating unnecessary spending and cutting purchases.

Microsoft Makes Staffing Changes

Microsoft announced several staffing changes at its Microsoft Canada and SMS&P (Small and Midmarket Solutions & Partners) divisions. Michael Park, currently SMS&P’s corporate vice president, will now hold the same position for Microsoft Business Solutions Sales, Marketing & Operations. Taking over for Park will be Phil Sorgen, who has been serving as the president of Microsoft Canada for more than three years. Sorgen will be replaced by the current head of Microsoft Canada’s SMS&P division, Eric Gales, who has worked for Microsoft since 1999.

RIM Posts Strong Earnings, Drop In New Subscribers

Research In Motion posted a profit of \$643 million during its first fiscal quarter, equating to about \$1.12 per share. That’s up 33% from the \$482.5 million it made a year ago. The BlackBerry maker added 3.8 million new subscribers during the quarter, down slightly from the 3.9 million it added during the previous



quarter. Revenue was up about 53% to \$3.42 billion, compared to \$2.24 billion a year ago. The company expects to have earnings of between 94 cents and \$1.03 per share during the next quarter, with revenue reaching between \$3.45 billion and \$3.7 billion.

Windows 7 Release Candidate Downloads End Aug. 15

The download program for the Release Candidate of Microsoft’s newest operating system,

Windows 7, will close Aug. 15, according to the company. After Aug. 15, the RC will be available for installation with a key. The Release Candidate, which became available on May 4, is the final public preview of the new operating system and will not actually expire until June 1, 2010; however, it will start shutting down at two-hour intervals starting March 1, 2010. The beta of the operating system expires Aug. 1, so Microsoft is encouraging users to move to the RC. The final version of Vista’s successor will officially debut on Oct. 22.

Nokia Buys Nortel Wireless Assets

Nortel Networks has agreed to sell its CDMA and LTE wireless assets to Nokia Siemens for \$650 million. Nortel is the second largest supplier of CDMA gear in the world, and it provides 4G infrastructure products to three of the top five global CDMA providers, including Verizon Wireless. Nortel filed for bankruptcy in January and has since had to sell off its assets. The deal should help Nokia Siemens expand its handset sales in North America and give it an advantage in the growing market for LTE devices, which are expected to provide ultra-broadband speeds on mobile networks.

Former Motorola CEO Joins NetSuite Board

NetSuite recently announced that it has named Edward Zander to its board of directors. The former president and chief operating officer of Sun Microsystems, Zander most recently helmed Motorola as its CEO and chairman of its board. Additionally, Zander is on Rensselaer Polytechnic Institute’s board of trustees and Boston University’s School of Management’s Dean’s Advisory Council. He has also worked in marketing and engineering at Data General, as a managing director at Silver Lake Partners, and as the vice president of marketing at Apollo Computer.

Reports Indicate Apple’s Jobs Had Liver Transplant

The Wall Street Journal reported in late June that Apple CEO Steve Jobs received a liver transplant several months ago at a facility in Tennessee, according to unnamed sources. Various reports suggest that Jobs purchased a mansion in Memphis near the Methodist University Hospital Transplant Institute, widely known as a liver transplant center. Jobs reportedly has been recovering since then but was expected to return to his Apple duties in late June, perhaps on a part-time basis, although Apple has remained customarily mum on Jobs’ health matters. Jobs has been away from Apple on medical leave for about six months due to what was billed as a condition involving a hormone imbalance that prevented his body from absorbing various proteins. Apple COO Tim Cook has been acting as Apple’s head in Jobs’ absence.

India IT Company Satyam Rechristened As Mahindra Satyam

The India IT company formerly known as Satyam Computer Services will now be known as Mahindra Satyam. The late-June renaming of the company is seen as an attempt to help the beleaguered company move past what is considered the country’s worst corporate scandal ever. In January, Ramalinga Raju, Satyam founder and chairman, admitted to falsely claiming about \$1 billion in assets in cash, as well as inflating Satyam’s operating margins. Following the uncovering of the fraud, the country’s government took control of Satyam, one of India’s largest IT companies. In April, Tech Mahindra, a unit of Mahindra & Mahindra, bought a 31% stake in Satyam. Reportedly, Vineet Nayyar, Tech Mahindra’s CEO and managing director, will be named vice chairman of Mahindra Satyam, while CP Gurnani, head of Tech Mahindra’s international operations, will be named Mahindra Satyam’s CEO.

Upcoming IT Events

Are you looking to learn more about data center or IT topics? Network with some of your peers? Consider joining a group of data center professionals. If you have an event you’d like listed, please send an email to feedback@processor.com.

- JULY -

[AITP-Central Idaho](#)
July 8, 11:45 a.m.
Owyhee Plaza Hotel
1109 Main St.
Boise, Idaho
www.boisestate.edu/dpma/dpmaci/centida.html

[AITP Washington, D.C.](#)

July 9, 6:30 p.m.
Alfio’s Restaurant
4515 Willard Ave.
Chevy Chase, Md.
aitpwashdc.ning.com

[ISSA Northeast Ohio](#)

July 9, 8 a.m.
Corporate College East
4400 Richmond Road
Warrensville Heights, Ohio
neoissa.org

[AFCOM Central Ohio](#)

July 15, 11:30 a.m.
Columbus, Ohio
www.afcomcentralohio.org

[AITP Northeastern Wisconsin Chapter](#)

July 15, 4:15 p.m.
Holiday Inn Select
150 S. Nicolet Road
Appleton, Wis.
new.aitp.org

[ISSA New England](#)

July 15
www.issa-ne.org

[ISSA Oklahoma City](#)

July 15
Spaghetti Warehouse
101 E. Sheridan Ave.
Oklahoma City, Okla.
www.issa-okc.org

[AITP Omaha](#)

July 16, 5:30 p.m.
Seraph Corp.
Omaha, Neb.
www.aitpomaha.org

[AITP Tarheel](#)

July 16, 6 p.m.
Foothill Brewery
638 W. 4th St.
Winston-Salem, N.C.
www.aitp.org

[ISSA Upstate SC](#)

July 17, 11 a.m.
NuVox
301 N. Main St., Suite 5000
Greenville, S.C.
www.upstate-issa.org/index.htm

[AITP Southwest Missouri](#)

July 21
Springfield, Mo.
aitpspringfield.org

[Oklahoma City AITP Chapter](#)

July 21
Oklahoma City, Okla.
www.aitp.org/organization/chapters/chapterhome.jsp?chapter=40

[ISSA Baltimore](#)

July 22, 4:30 p.m.
Sparta Inc.
7110 Samuel Morse Drive,
Suite 200
Columbia, Md.
www.issa-balt.org

[ISSA Des Moines](#)

July 27, 11:30 a.m.
1401 50th St., Suite 200
West Des Moines, Iowa

[AFCOM Michigan Chapter](#)

July 29
Farm Bureau Insurance
Lansing, Mich.
www.afcommi.org

PRODUCT SPOTLIGHT

A Look At Cable Management

Whether an enterprise is constructing new data center space or renovating an existing area, IT can't overlook the proper installation or modification of associated power and data cabling. Be the approach above-the-head wiring or an under-floor solution, how IT manages potentially unwieldy cabling can directly affect employee downtime, company budgets, proper airflows, ideal cooling levels, and the ease of scaling infrastructure in the future. Though ideal cable management products are easy and quick to implement, they must also meet code, be affordable and energy-efficient, and provide longevity.

CableTiesAndMore Velcro Qwik Ties Tape Core

Featuring a newly designed core, the black Velcro Qwik Ties Tape cost-effectively bundles wires and cables and can stick to ladders, cabinet sides, and other surfaces for easy dispensing. The tape includes a hook on one side and loop on the other, letting users wrap wires, cords, and cables quickly. The ties can also be opened and closed repeatedly.

- Easy to use—just cut Velcro to desired length and apply
- Suitable for fiber optic applications, in-plant maintenance, packaging, medical devices, wire harnesses, and other uses
- 25-yard roll size

Best For: Ideal for all cable management applications.

\$18.75 per 25-yard roll
(877) 284-7760
www.cabletiesandmore.com



CableTiesAndMore Large Capacity Hinged Cable Raceway

CableTiesAndMore's line of aesthetically pleasing extruded cable raceways comes with preapplied adhesive backing, fittings, and inside and outside corners to ensure the wire management solutions are 100% customizable. The 1125 Series latching raceways accommodate larger-diameter cables, while all surface raceway parts are constructed of durable, lightweight PVC that's UL 94-VO-compliant, flame-resistant, and latex-paintable.

- Triangular corner raceway design blends into wall/ceiling junctions
- Hinged cover allows for easy, quick installation
- 0.75 x 1.5 inches (HxW), 5 feet long

Best For: Hiding wires in nondrillable walls and ceilings.

\$9.97
(877) 284-7760
www.cabletiesandmore.com



Cables To Go RapidRun

Carrying multiple signals over one cable, the RapidRun system supports everything from composite video to HDMI. Upgrades or equipment changes require only changing the cable terminal, Break-Away flying lead, or Break-Away wall plate rather than running a new cable. The approach provides users with quicker installations and future-proofing, accommodates last-minute changes, and reduces the likelihood of faulty terminations.

- Can pull through 3/4-inch conduit with a 90-degree sweep
- Pulling cap withstands 30 pounds of pulling tension and protects contacts within connector
- Color-coded Runner cables and Break-Aways
- Terminations require no tools, splicing, or soldering
- Terminates in less than a minute and reterminates for easy upgrades

Best For: Conference rooms, A/V applications, and digital signage for easy equipment upgrades without running new cables.

(800) 506-9607
www.cablestogo.com



Cables To Go TruLink 4-Port Wireless USB Hub & Adapter Kit

The TruLink 4-Port Wireless USB Hub and Adapter Kit eliminates USB cables via a wireless USB connection that lets users move around the office with a laptop but maintain access to their USB devices, including printers, scanners, and digital cameras. Desktop users benefit by moving USB devices off the desk to locations up to 30 feet away.

- Full support for USB peripherals
- Access and device-sharing support for up to six associated computers
- USB-IF-certified
- Based on Ultra Wide Band technology for speedy data transfer and low power consumption
- Plug-and-play connectivity with simple software installation and setup

Best For: Reducing desktop clutter and maintaining connections with USB devices.

\$199.99
(800) 506-9607
www.cablestogo.com



HellermannTyton E Series Horizontal Wire Managers

HellermannTyton's E Series Horizontal Wire Managers protect cables and maintain their integrity by providing a 1-inch minimum bend radius. The enhanced wire managers are designed with an aesthetic design offering a clean look with textured covers that prevent fingerprints. Simple snap-on latches make opening the cover easy during moves, additions, and changes.

- Available in 1U and 2U versions
- Single- and dual-sided horizontal management
- Injection molded

Best For: Any rack or cabinet in need of quality cable management.

(800) 537-1512
www.hellermann.tyton.com



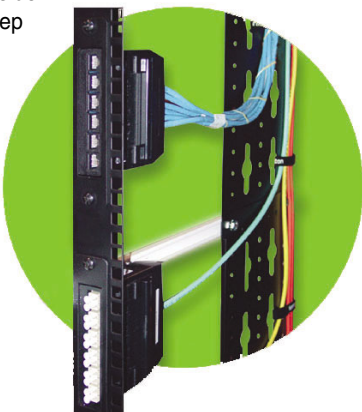
HellermannTyton RapidNetRail

The RapidNetRail supports HellermannTyton's RapidNet preterminated network cabling solution and requires zero rack space in most manufacturer server cabinets. The RapidNetRail mounts in the rear of cabinets to the side bars and is best suited for server cabinets 42 inches deep or more. The mounting design's versatility and size options, however, let users install the solution in shallower cabinets or horizontally above the cabinet.

- Available in four sizes
- Mounts up to 10 RapidNet cassettes

Best For: Data centers needing to maximize cabinet real estate.

(800) 537-1512
www.hellermann.tyton.com



PDU Cables Prefabricated UL Listed Cable Assemblies

Consisting of flexible metal conduit, PDU Cables' standard cable assemblies meet insulated power, neutral, and ground requirements. Each cable comes with the appropriate receptacle, a die-cast bell box, and stainless steel faceplate. PDU Cables also constructs its cables to specified lengths and can accommodate custom requirements.

- UL 478 listed and tested
- Single- or multiple-circuit cables
- Nine conduit color options
- Custom labeling option

Best For: Raised-floor and data center applications.

(866) 631-4238
www.pducables.com



PRODUCT SPOTLIGHT

Compiled by Blaine Flamig

PDU Cables Air Guard Cable Seal Product Line

PDU Cables is the exclusive supplier of Air Guard Cable Seal products, which seal access holes necessary for routing cables through data center flooring, thus providing energy savings. Beyond minimizing cool-air losses, Air Guard products improve the static pressure for cooling data center equipment, helping to protect costly electrical equipment from damage and overheating.

- Eliminates bypass air through cable cutouts
- Reduces air loss in plenum-cooled floors
- Increases under-floor static pressure
- Supports removal of floor tiles without disconnecting equipment



Best For: Plenum-cooled data center floors.

(866) 631-4238
www.pducables.com

Power Cabling UL Listed Power Distribution Cables

Power Cabling's custom-built, UL-listed power distribution cables are 100% electrically tested for Hipot and Continuity standards, factory-direct priced, and shipped ready to install. PDU Cabling warranties its manufactured products and assemblies for life under normal use to be defect-free in material and workmanship, and all cables meet quality standards that Underwriters Laboratories have established.

- 13 color options
- Custom assemblies available to meet individual requirements
- Common configurations stocked in various lengths, ready to ship same day
- Liquid-tight construction

Best For: Raised-floor data center and computer room environments.

(800) 658-0888
www.powercabling.com



Rackmount Solutions CO-19-0U Cable Organizer

The CO-19-0U 19-inch Cable Organizer supports cable weight via a neat, clean installation that saves space by mounting behind existing patch panels or other equipment and supporting cable in front and back of the rack while maintaining port accessibility. For higher-density installations, users can stack two or more Organizers. Four unique Velcro cable straps secure cables for easier installations.

- Requires zero rack space
- No need to move existing panels
- Preserves cable integrity

Best For: New or retrofit installations.

\$36
(866) 207-6631
www.rackmountsolutions.net



Rittal Manage-IT

The Manage-IT cable manager system organizes cables and patch cords via an easy-to-implement, flexible, and cost-effective approach. In addition to using integral cable retention to secure cable bundles, the system requires no tools and is mountable in any location within a vertical trough or enclosure frame.



- Installs in 0U space
- Capacity of up to 1,100 cables
- Large pathways for high-density patch cables
- Added support for copper and fiber data cables via bend radius on all cable pathways

Best For: Vertical trough and enclosed-frame IT applications.

(800) 477-4000
www.rittal-corp.com

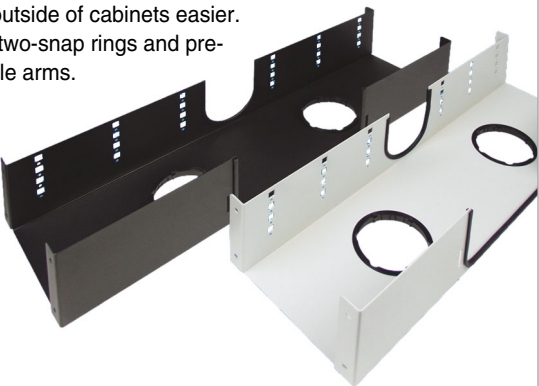
Rittal Overhead Cable Manager System

The tool-less Overhead Cable Manager system makes managing cables outside of cabinets easier. Installation requires only fastening the managers to an existing roof using two-snap rings and pre-existing cable passes or via the Overhead Cable Manager using extendable arms.

- Tool-less installation
- Can run data and power cables through one trough using cable claws
- Ladder rack installations in parallel and perpendicular configurations
- Integrated grounding provisions

Best For: Overhead IT applications.

(800) 477-4000
www.rittal-corp.com



CablesAndKits.com 2U Cable Management Panel

Use this 2RU 19" Cable Management Bracket/Panel to organize the cables in your equipment rack. This extremely cost-effective unit has five removable cable rings with the ability to mount the rings on each end vertically or horizontally.

- Five-ring design; each ring is 2.5 x 2.125 inches
- Metal panel design for stability
- Plastic ring design for flexibility

Best For: Racks with a large number of cables.

(888) 622-0223
www.cablesandkits.com



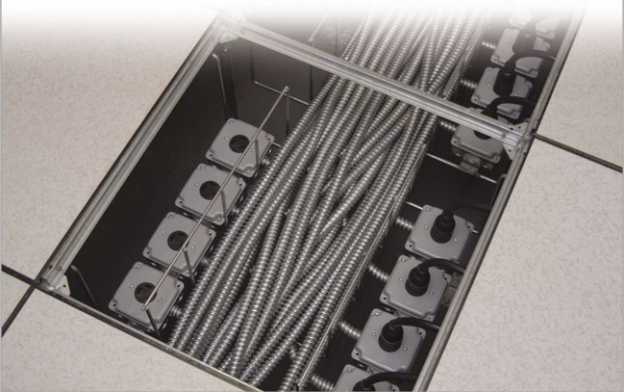
Snake Tray Power Snake Canyon

The patented Power Snake Canyon includes an under-floor cable tray that integrates a power module to create an all-in-one system providing cable paths and up to eight preinstalled power receptacles. In addition to reducing construction costs, the modular cable tray installs nearly instantly via a 30-second attachment system to any access floor with no tools or hardware needed. The cable trays are reusable and won't void a manufacturer's warranty.

- All-in-one cable management and power module design
- Movable and reusable
- 30-second attachment installation to any access floor type

Best For: Installations under access flooring.

(800) 308-6788
www.snake-tray.com



Upsite Technologies KoldLok Grommets

KoldLok Grommets can be installed to seal cable openings that would otherwise allow precious cool air to escape. The Grommet is composed of thousands of bristles, so when you run cables up through it, the opening controls airflow, sealing cold air where it belongs. KoldLok Grommets come in various shapes and sizes depending on the size and configuration of your cable openings.

- Bristles are engineered to be very fine and rigid so that the cables are "locked" into position to control airflow
- Treated with a special static dissipation mixture to prevent electrical discharge

Best For: Sealing any size cable opening.

(888) 982-7800
www.upsitetechologies.com

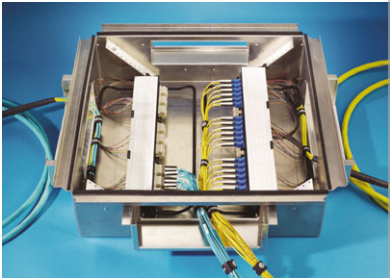
Wiremold/Legrand Zone Cable Management Enclosures

Plenum-rated Zone Cable Management Enclosures integrate into standard 2- x 2-foot floor tile grids to conserve space and reduce cooling requirements by moving active equipment to alternative locations. Ceiling and floor enclosures are available for passive and active voice and data network apps, with the ceiling enclosures designed for integration with standard drop-ceiling openings.

- Increased flexibility
- Passive enclosure option for voice and network wiring blocks
- Passive enclosure option for data network patch panels
- Active enclosure option for housing active equipment and voice and data connectivity

Best For: Drop-ceiling or raised-floor applications.

(800) 621-0049
www.wiremold.com



President Obama Details National Cybersecurity Intentions

In a move aimed at creating a comprehensive national policy on cybersecurity, President Barack Obama announced he will appoint a national cybersecurity coordinator. In addition to answering directly to Obama, the coordinator will hold a position on both the National Security Council and National Economic Council.

Accompanying Obama’s announcement was a 60-day “Cyberspace Policy Review” he commissioned that included a summation that the “Federal government is not organized to address this growing problem effectively now or in the future.” The report also includes 10 “near-term action” plans deemed necessary to establish an effective cybersecurity policy, including preparing “an updated national strategy to secure the information and communication infrastructure,” creating a “national public awareness and education campaign to promote cybersecurity,” and investing in cybersecurity R&D. Obama says he aims to preserve and protect personal privacy and civil liberties by not “monitoring private sector networks or Internet traffic.”

Not Easy To Focus On

Chris Zoladz, founder of consulting firm Navigate LLC.net, says the president’s cybersecurity moves are a good step. “Information security is an item that’s easy to not focus on, ignore, [or] defer, until something goes wrong.” Zoladz also favors Obama’s inclusion of the private sector as part of the effort. “The last thing the private sector needs is more government mandates,” Zoladz says. A partnership between the government and private sector, Zoladz says, “will result in creative thinking and solutions” and produce better results vs. the government mandating policies.

Greg Nojeim, senior counsel at the Center For Democracy & Technology, says Obama’s cybersecurity plan is “a new approach, at least publicly, and it’s a welcomed one. . . . We were pleased that the cybersecurity plan indicates a clear intent to build privacy protection in, when other measures proposed might otherwise threaten privacy.” Nojeim says as important as what Obama announced is, what he didn’t announce is also essential. Specifically, Nojeim says the president doesn’t seem interested in some proposals that would give the president such powers as shutting down Internet traffic in the event of a cybersecurity threat or attack.

Nojeim and Zoladz both believe candidates for the coordinator position should possess such basic traits as strong communication skills, integrity, and intelligence as well as being a team player. Nojeim believes some cybersecurity experience on a larger scale would be a positive, although Zoladz says that while having a more-than-casual appreciation of cybersecurity issues would be optimal, there are individuals who are information security experts but not “terribly versed in the privacy space.” Ultimately, “having a seat at those tables can make the right person a player and change agent,” Zoladz says.

by Blaine Flamig



Improving Your Floor Plan

Continued from Page 1

the importance of having an optimal layout and site plan. It’s not just a functional issue; it’s a cost issue, as well.”

Making The Business Case

Getting started often means accepting that you have a problem in the first place. Often, companies get into trouble long before they’re aware of it. For example, maxed-out air conditioning that barely manages to maintain average temperatures could be a symptom of inefficiency. Hot spots and heat-caused equipment outages are also tell-tale signs of a problem, as is runaway power consumption. Higher-density equipment may enable data centers to do more in a smaller footprint, but it also raises the stakes within facilities that traditionally hadn’t paid much attention to layout.

Ramzi Namek, Fortress International’s director of engineering, says simple always works best, and it helps to start with a simple picture.

“A two-dimensional plan of the floor is a good place to start,” says Namek. “That plan, ideally done in a CAD system, should have up-to-date information on your equipment and rack locations. Next, you’ll want a 3D plan of the inventory in the racks themselves.”

Top Tips

- Create simple 2D and 3D pictures of the floor layout and rack configuration.
- Assess airflow to zero in on hot spots.
- Monitor power usage to identify areas of excessive consumption.
- Look under raised floors to identify and remove obsolete cable and conduits.
- Partner with facilities resources to institutionalize long-term capacity planning.

Namek says computational fluid dynamics software can then use these plans as the basis for building a model that simulates temperature variances at various heights in the room. The resulting picture highlights hot spots and other airflow-challenged areas.

“It tells you where your problem areas are and tells you where you may need to move things around to get a more even temperature distribution in the space,” he adds. With power densities continuing to increase, this level of knowledge allows more precise longer-term planning of the data center layout.

Look Down

Layout also applies to the parts of the room you can’t see. Michael Terlizzi, executive vice president of operations with Telx (www.telx.com), says unmanaged cables under raised floors are a major layout challenge.

“We do not run any of our power cabling or transmission cabling under the floor,” says Terlizzi. “We look at the raised floor as an air plenum and are big proponents of overhead cable trays to maximize use of the space.”

Data center managers should also actively replace cables and remove dead or unused cables and conduits to avoid inefficient space usage that can impact airflow. Occasional releveling of raised floors and replacement of drilled-out floor panels are also part of more effective layout planning efforts.

Smaller Footprint, More Power

Equipment reduction plays into more effective use of the space, as well. For every server removed through consolidation or virtualization, power and cooling infrastructure can also be trimmed back. The move from 120V power to 208V and 230V and three-phase infrastructure doesn’t just drive greater efficiencies and support more granular monitoring of power usage, it also reduces the number of transformers in the data center space.

Joe Perillo, vice president of enterprise infrastructure technology operations at

MetLife, says subdividing a larger facility into smaller areas, or bays, allows more precise management of data center resources.

“What I really like about this approach is you can take a given bay and really control the power and cooling to your specific needs,” says Perillo, whose 50,000-square-foot facility is subdivided into five 10,000-square-foot bays. This layout gave him additional flexibility as his Wintel-based server needs continued to grow and place pressure on the data center infrastructure.

“It got to the point that the equipment was creating a lot of heat as well as power concerns. The older racks in the bays were not keeping up, as the bay was rated at 100 watts per square foot and we needed upwards of 110,” adds Perillo. “We were able to adjust to these new power and cooling needs in 10,000-square-foot chunks and didn’t have to retrofit the entire 50,000-square-foot space.”

Facilities: IT’s Friend

Evolving the space shouldn’t be a solo proposition. Solid partnership between IT and facilities can help build a more comprehensive data center roadmap.

“We do a lot of planning and try to stay out in front of it by at least a year or two to better understand what the next wave of equipment will be,” says Perillo. “We work very closely with facilities, and they’ve been very helpful to us in correctly placing the equipment to avoid hot spots or other problems.”

Brian Strosser, vice president of enterprise data management with DLT Solutions (www.dlt.com), says close examination of legacy hardware could highlight opportunities to downsize through virtualization. The resulting improvements in efficiency and reduced operational costs can be used by project planners to build the business case for initial investment.

“Managers should test different virtual scenarios in order to analyze the performance of the tools, products, and processes they plan to implement within their data center layout,” says Strosser. “Capacity planner tools are good to use, as they can help you determine what the new layout would be like, how many servers can be eliminated, and how the transition will go.”

Stay Afloat With Conservation

Continued from Page 1

onsite water use,” says Cockrell. “Any reduction of water at the facility is good but not the entire answer. We need to cut energy to save water.”

Water consumption at a facility typically goes to two places, he adds. There’s the “domestic” usage, seen with every office building, and then the data center cooling environment usage, which includes humidifiers and cooling towers. “Nothing at a facility uses more water than the cooling tower,” he says. Compounding that usage are high-density servers that require more cooling and, therefore, more water. Particularly at cloud computing server farms, water is being cycled through at an increasing rate, taxing their cooling towers.

Water Issues

Cooling towers take hot waste water from the data center and remove the heat through evaporation. Most of the remaining water is shuttled back to the data center cooling system, with a portion drained out for sediment removal. When this system is used for a large-scale data center or server farm, the amount of water required can be formidable, and in some cases, can even exceed the capacity of municipal systems.

That concern has led some larger companies to take a closer look at their operations. For example, Google is attempting to use recycled water from nearby rivers and canals, which means water availability is a large influence on where new data centers are con-

structed. Microsoft also examines geography and water when choosing new sites, as when it picked San Antonio because that city has the ability to process large amounts of recycled water, without affecting the drinking supply. Some companies are even drilling their own wells, such as Experian, which dug a well for its Dallas-based data center so it wouldn’t have to rely on the municipal system. Other companies are experimenting with different technologies and products, such as rainwater capture systems or variable speed drives in cooling towers.

Water cleanliness is another issue, notes Skarulis. Chemicals are often added to make water “behave” in a certain way, he says, such as reducing hardness or speeding evaporation. Because of these chemicals, the water can’t go back in the municipal system, as it could become an environmental hazard. “If data centers could use water and not have to put tremendous amount of toxins in it, that would be a great opportunity,” says Skarulis. “People are working on a number of options for that like using UV light, or safe biological agents, but nothing is really catching on yet.”

Future Navigation

It’s likely that most SMEs don’t have the capital required to dig a well or buy rainwater systems, but there are strategies they can employ to boost water conservation efforts.

The first step is to create a water management program that starts with a baseline measurement of water usage, gleaned from bills,

meter readings, and a meeting with a utility company rep. If the data center is in a shared building, a data center manager should get a grasp of the company’s system usage in gallons and dollars, says Skarulis. Also important is looking at processing cycles. “Ensure that the cycles are as high as possible to give the best water utilization, and that the systems are clean,” he says. “Ask the chief engineer to get to know your water treatment and discuss your cooling tower regularly. Don’t have him simply rely on the reports; go to the tower once every three months and take photos.” Organic debris and film can build up in the tower, creating efficiency loss and more complex issues, he notes.

Another route is to call a cooling engineer to get an evaluation that will become part of the company’s sustainability report, adds Cockrell. “The energy and water question has been around for a long time,” he says. “It’s really not a simple answer for everyone.” But creating awareness and long-term plans now can go a long way toward reducing consumption in the future.

Additional Strategies

- Install low-flow fixtures as a way to kick off a water management program.
- Set goals that look far ahead, such as five to 10 years, and address proposed water usage in the data center.
- Use the results of initial water management efforts to get CFOs and CEOs informed on the issue, which can help with later buy-in for larger projects.

Virtualize Your Data Center

Time & Planning Are Key To The Success Of A Virtualization Project

by Elizabeth Millard

VIRTUALIZATION HAS BEEN TOUTED as the big answer for everything from managing equipment costs to boosting energy efficiency, but like other major technology strategies, whether it works for a specific data center will depend largely on that organization’s needs and goals. Even experts who wave the virtualization flag as enthusiasts for the tactic admit that it’s not a one-size-fits-all strategy.

So, how can a small to mid-sized enterprise take the first steps toward a virtualized environment without overbuying or hiring numerous consultants? Here are some tips on getting up and running and following through for a successful implementation.

Determine If Virtualization Is Necessary

Experts note that there are three major steps in starting a virtualization play: planning, planning, and planning.

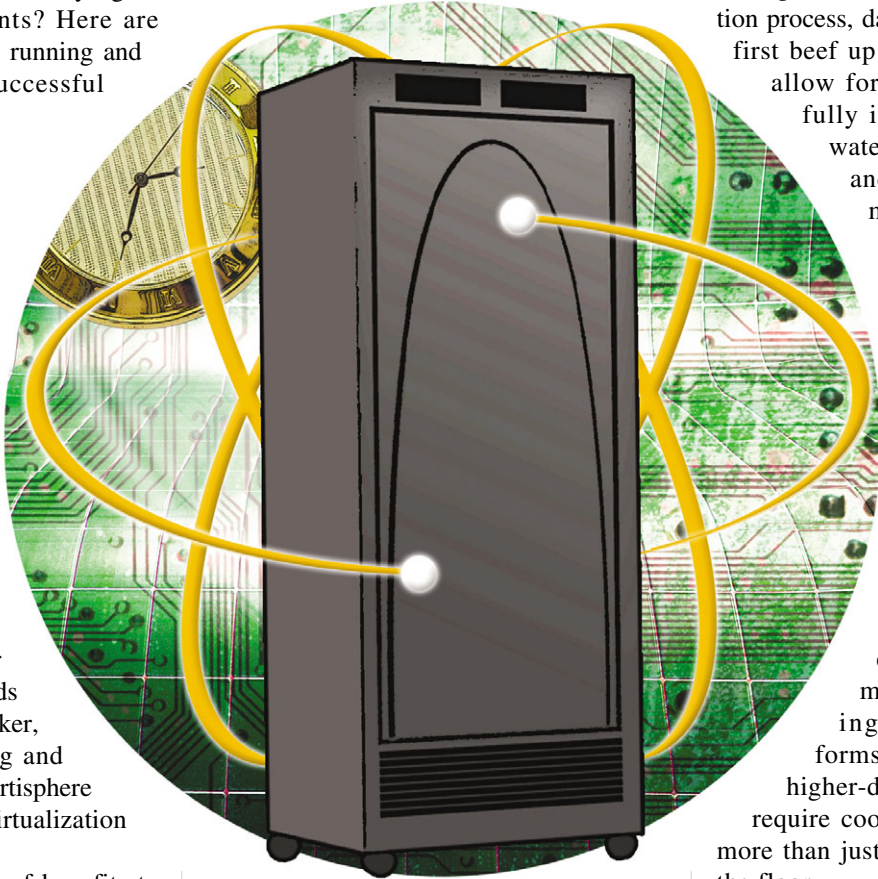
Virtualization is a new way of operating the data center, as opposed to just a large-scale IT project, so implementing the strategy requires a shift in mindset within the data center as well as communication with other departments about their needs and goals, notes Lilac Berniker, senior director of marketing and business development for Fortisphere (www.fortisphere.com), a virtualization management firm.

Although there are plenty of benefits to the strategy, IT departments should spend some time deciding if virtualization is truly right for their data centers. Implementing virtual machines requires budget expenditure for software, employee training, and most of all, a good chunk of time on the part of the data center manager.

For those companies ready to make the virtual leap, though, planning can help to quantify savings for virtualization that can make for solid project justification.

For example, a plan might focus on how power reduction and fewer hardware acquisitions, as well as less software licensing, can save money in the long run. Also important for this mix are longer-term, indirect savings such as shorter server build time, which translates to less downtime.

Project management is extremely helpful in this regard, and it’s also helpful to take advantage of vendor tools and advice. For example, VMware offers basic consolidation estimates that include capacity planning information, and it’s certainly not the



only company that’s willing to come in and determine cost savings based on an existing infrastructure.

The type of information that will be pulled together either with a vendor or in-house can include which physical servers will consolidate well, a good VM-to-host consolidation ratio, estimation of total disk storage, and different vendor hardware platform scenarios.

Think About Storage

A major challenge for some companies comes with the realization that virtualization can also be a DAS to SAN move, and they neglect to size the SAN infrastructure appropriately for their workloads. This can lead to issues with accurately mapping storage performance and capacity requirements.

Undersized storage arrays are a common problem for SMEs implementing a virtual infrastructure, notes Kris Domich, principal consultant for IT services provider Dimension Data (www.dimensiondata.com).

He notes that organizations should be careful about choosing servers for consolidation based on nominal CPU and RAM usage because there’s a tendency away from quantifying disk I/Os on the pre-consolidation server sets. This can lead to an inadequately sized centralized storage platform and subsequently less-than-ideal performance from the virtual servers.

Key Points

- Plan extensively for virtualization, with the understanding that it will change data center operations rather than just be another IT project.
- Make sure the physical infrastructure can handle virtualization, particularly if cooling needs increase.
- Put management and automation tools in place from the beginning rather than trying to integrate them after deployment.

Check The Physical Infrastructure

As part of the planning and implementation process, data centers should be sure to first beef up on important features that allow for virtualization to be more fully integrated, such as chilled water-based cooling, a scalable and centralized UPS system, multitiered network storage, and environmental instrumentation, says Domich.

“From a procedural standpoint, smaller organizations may not spend as much effort on managing capacity of data center components or the data center itself,” he says. In order for a data center to fully exploit and realize the benefits of a virtualized environment, the facility must be capable of supporting current hardware platforms, Domich adds, which are higher-density and will, over time, require cooling strategies that involve more than just static air pressure through the floor.

“Expanding the instrumentation of the data center to include monitoring of rack and equipment inlet temperatures and ensuring that adequate cooling is provided based on load levels will not only keep equipment temperatures within manufacturer-recommended levels but also contribute to the reduction of energy costs,” Domich says.

Manage, Monitor & Automate From The Start

Making sure that the correct tools are in place from the very beginning is a major part of the initial virtualization process, so SMEs should spend a good deal of time planning what type of automation, management, and monitoring they need.

Automation can help size VMs appropriately, notes Fortisphere’s Berniker, and can assist in troubleshooting because the tools can identify differences between virtual machines and their baseline templates and alert administrators if any discrepancies crop up.

Resource management has also been developed to a much better degree lately, she notes, pointing out that the first implementations of virtualization were so cost-effective that SMEs were not as concerned with whether they were overallocating resources. Now, however, infrastructure groups are looking to maximize their allocation of all the key resources in an environment, and tools toward that end can be crucial. [E]

Upcoming IT Events

For more Upcoming IT Events, see page 3.

- AUGUST -

AFCOM St. Louis
“Gateway” Chapter
Aug. 11
Schneider Electric Technology Center
807 Corporate Centre Drive
O’Fallon, Mo.
www.afcom.com/afcomnew/stlouis.html

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Greater Kansas City
AFCOM
Aug. 11
Cerner Corp.
3200 N. Rockcreek Parkway
Kansas City, Mo.
www.greaterkc-afcom.com

• • • • •

AFCOM New England
Aug. 12
afcomnewengland.org
• • • • •
AFCOM Central Ohio
Aug. 12, 11:30 a.m.
Columbus, Ohio
www.afcomcentralohio.org

• • • • •

AITP San Diego
Aug. 12, 5:30 p.m.
National University-
Kearny Mesa Campus
3678 Aero Court, Room 217
San Diego, Calif.
sandiego.aitp.org

• • • • •

AITP Washington D.C.
Aug. 13, 6:30 p.m.
Alfio’s Restaurant
4515 Willard Ave.
Chevy Chase, Md.
aitpwashdc.ning.com

• • • • •

ISSA Northeast Ohio
Aug. 13, 8 a.m.
Corporate College East
4400 Richmond Road
Warrensville Heights, Ohio
neoissa.org

• • • • •

AITP
Southwest Missouri
Aug. 18
Springfield, Mo.
aitpspringfield.org

• • • • •

Oklahoma City
AITP Chapter
Aug. 18
Oklahoma City, Okla.
www.aitp.org/organization/chapters/
chapterhome.jsp?chapter=40

• • • • •

ISSA Oklahoma City
Aug. 19
Spaghetti Warehouse
101 E. Sheridan Ave.
Oklahoma City, Okla.
www.issa-okc.org

• • • • •

AITP Omaha
Aug. 20, 5:30 p.m.
Seraph Corp.
Omaha, Neb.
www.aitpomaha.org

• • • • •

AITP Tarheel
Aug. 20, 6 p.m.
Foothill Brewery
638 W. 4th St.
Winston-Salem, N.C.
www.aitp.org

• • • • •

ISSA Upstate SC
Aug. 21, 11 a.m.
NuVox
301 N. Main St., Suite 5000
Greenville, S.C.
www.upstate-issa.org/index.htm

• • • • •

ISSA Des Moines
Aug. 24, 11:30 a.m.
1401 50th St., Suite 200
West Des Moines, Iowa

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ISSA Baltimore
Aug. 26, 4:30 p.m.
Sparta Inc.
7110 Samuel Morse Drive, Suite 200
Columbia, Md.
www.issa-balt.org

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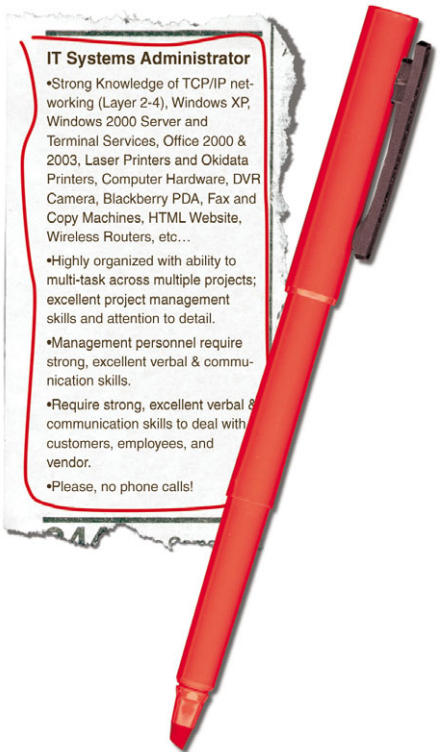
- SEPTEMBER -
AFCOM Central Ohio
Sept. 9, 11:30 a.m.
Columbus, Ohio
www.afcomcentralohio.org

Tech Employment Outlook Shows IT Job Losses

According to a recent study by the TechServe Alliance (formerly known as the National Association of Computer Consultant Businesses), IT employment dropped by about 150,000 jobs between November 2008 and March of this year. And from this March to April, TechServe indicates that IT employment lost another 24,500 jobs, or 0.63%, to 3,878,800. November 2008's 4,058,400 tech jobs marked the highest level in tech employment in the nine years TechServe has been tracking employment numbers.

Mark Roberts, CEO of TechServe Alliance, says that "the last time we were at the current levels of employment dates back to July or August of 2007." On the plus side, Roberts notes that "on a year-over-year basis, IT employment had only declined 1.79%, whereas the general workforce shed almost 3.5% within the last 12 months."

According to TechServe's report, rather than letting people go, many data centers and enterprises are now merely in a hiring freeze,



which may be a good sign for the economy. Until the economy fully stabilizes, Roberts says, "IT employees can expect a number of months where IT enterprises will be shedding jobs." When companies do hire back labor, the initial staff will likely be contract labor, because IT employers won't want to take on permanent staff until they are sure the recession is over.

Staff More Likely Let Go

Depending on the type of job, some IT staff have been more likely to be let go than others. TechServe's data found that, on a quarter basis, unemployment for database administrators was at 6.1%, computer support specialists was at 5.3%, and network and computer administrator unemployment was at 4.3%. "Although the numbers are low for the general population," Roberts says, "these employment rates are much higher than what we typically see in the IT sector."

When asked what current IT employees should show employees to keep their job, Roberts says "make yourself as valuable as you can." Whether you're a data center employee in a small to midsized enterprise who does several jobs or a highly specialized worker in a large enterprise, you'll want to be the best at that position, he says.

by Nathan Lake

Maximizing Your Existing Storage

Technique, Tools & Money Make All The Difference

by Chris A. MacKinnon

ASK ANY DATA CENTER or IT manager about the pangs of enterprise storage, and you'll likely hear that an unmanageable storage system is a major headache. The good news is there are steps you can take to prevent even the slightest of storage headaches.

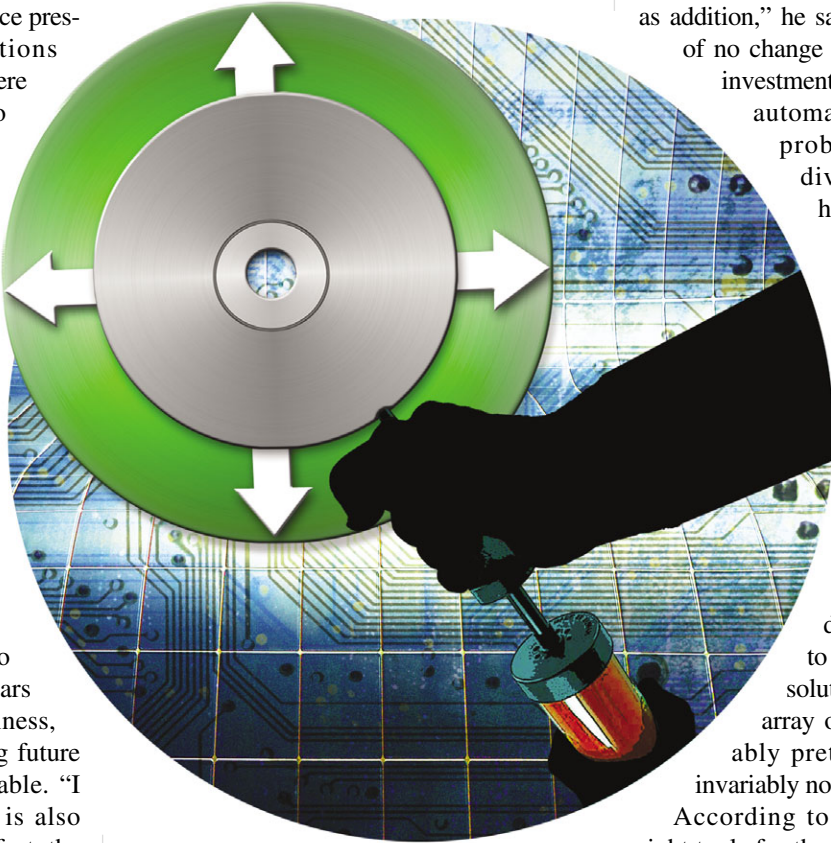
Techniques To Try

Christopher S. Young, executive vice president of Gresham Storage Solutions (www.gresham-storage.com), says there are techniques that SMEs can use to get the most from their existing storage systems. "First and foremost, consolidate," he says. "Disparate storage systems almost always result in high levels of inefficiency. By consolidating storage systems under single, centralized points of control and management, you can fully exploit the capabilities of existing infrastructure. Consolidation also enables customers to identify opportunities to reduce existing infrastructure without compromising the remaining equipment's ability to meet business needs."

Young says consolidation leads to lower operational costs, frees up dollars to invest in other areas of the business, and simplifies infrastructure, making future changes and growth more manageable. "I would suggest that virtualization is also key," he adds. "Virtualization is, in fact, the best method of achieving consolidation,

because when done right, it creates a central point of management so that device connectivity is management and presentation simplified."

Mark Peters, an analyst with Enterprise Strategy Group, says it may seem rather obvious, but one of the first steps is to stop and think. "Staring out the window is amazingly good to review what's possible and what you might want to achieve," he says. "From the generic to the very specific, find out what you actually have—you'd be surprised how many don't know—and both how



and for what it is being used. There are non-invasive SaaS-style services out there that are inexpensive [and] that can advise you on percentage of used and unused LUNs (logical unit numbers) and recommendations on what stranded storage you can easily reclaim." Peters says things such as deduplication, automation, and tiering all provide more bang for your buck.

Getting Started

One of the most important things to understand before getting started, according to Young, is the time value of data. "For those who are not familiar with the term 'time value of data,' it is the worth of a particular piece of data over time," he explains. "Typically, as time goes on, data becomes less valuable, so the time value of data decreases over time. The reason it is so important to understand this is that different storage systems have different costs, and cost should be aligned with value." For example, Young says if recovery of a particular file is mission-critical, its value is extremely high. "Quick recovery warrants the use of higher-cost storage medium, because otherwise, the value of the data is compromised and business requirements are not met; therefore, the operation is put at risk."

Young says if the time value of data is not understood, then it is unlikely that a customer will be able to align existing infrastructure capabilities with business requirements in the most efficient fashion.

Enterprise Strategy Group's Peters says SMEs need to clearly consider their aims and objectives. "For example," he says, "are they seeking the fastest or the lowest cost? That'll be a function of the business—its type and relative health. It's important to find out some basics, including allocation levels, the level of flexibility that you have (contracts

Key Points

- There are many techniques and technologies available to make your storage more manageable, including consolidation, virtualization, deduplication, and tiering.
- Before making changes to your storage system, assess the data stored, its criticality to the enterprise, and how it is used and plan accordingly.
- New equipment can be a good investment, but it's also possible to save money by reallocating existing systems.

and applications may tie you), and how much you're spending on power and other items."

Spending & Saving

Peters says if your existing storage isn't providing the best approach, there are products, tools, and programs that you can invest in. "It may be a matter of replacement as well as addition," he says. "The opportunity cost of no change may outweigh the cost of investment. And remember that new automation or virtualization is probably going to reap big dividends. Not everything has to be leading-edge; for instance, if you are not tiering at all, then even a basic manual tiering effort is good."

Peters continues, "DAS is also convenient, but of course it's likely to lead to 'lumpy' provisioning, so a thorough investigation of the value of networked storage could pay dividends. Today's small to midrange SAN and NAS solutions come with a dazzling array of features that are invariably pretty easy to use and also invariably not ridiculously priced."

According to Gresham's Young, the right tools for the job include "iSCSI, virtualization software and hardware, and great management software." And as for typical costs involved, Young says the biggest upfront cost will likely be for software that provides storage capacity utilization metrics or the cost associated with having someone review how things are being done and where inefficiencies exist.

However, Young says those costs can be largely offset through deferred purchases of new hardware, which can be made possible by redeploying existing storage infrastructure in a more intelligent fashion. "Certainly this is one of the single most important promises of virtualization hardware and software, as any decent product will give a company the ability to utilize existing infrastructure but in a fashion that provides a far greater degree of dynamic allocation, which results in better utilization."

Ups & Downs

Of course, where there are benefits, there are always pitfalls. Young says the benefits of looking to iSCSI, virtualization software and hardware, and management software is that they all enable you to leverage existing infrastructure in a more intelligent fashion, thereby realizing greater utilization and, on average, lowering overhead and ongoing administration costs. "This is particularly important at a time where identifying ways of reallocating existing expenditures to avoid increasing costs while still improving operational capabilities is a must to give a company the greatest chance of surviving these challenging economic times," he says.

"However, the major pitfall in all of this is that heading down the road of infrastructure consolidation and cost reallocation is only effective if an organization is committed to seeing through the entire process," Young concludes. [E]

Prepare For The Worst

Make The Most Of Your Disaster Recovery Planning Project

by Bruce Gain

IT BUDGETS ARE TIGHT THESE DAYS, and investing in new projects—even one as important as disaster recovery—is often seen as fiscally impossible. But another way to look at the cost factor associated with disaster recovery is how much any small to medium-sized enterprise’s IT department stands to lose without a solid disaster recovery plan in place. Not being able to get a data center up and running when disaster strikes could do more than just cause delays in an enterprise’s operations—in many cases, it could mean the end of the company.

Here is a look at some things to keep in mind as you design your disaster recovery plan.

Top-Down Risk Assessment

The first step in setting up a disaster recovery plan involves determining the enterprise’s mission-critical applications, without which the business cannot function. Mission-critical applications will vary according to the enterprise, so disaster recovery plans—and costs needed to realize them—will vary, as well.

A firm that offers Web hosting services, for example, cannot have its servers go down for any period of time without putting its entire business in jeopardy. To prepare for a disaster, the Web hosting firm might have a separate location hundreds of miles away with duplicate servers running the same applications and data as the main site. If the main site goes down, then the parallel site continues to function alone, without any effect on customers’ Web sites housed on the servers.

On the other end of the spectrum, a firm might rely on servers only to back up electronic communications and payroll records and could continue to function without a data center for several days.

“Like any other business, [the IT department] needs to understand the most mission-critical function their firm executes,” says Michael Croy, director of business continuity solutions at Forsythe Technology (www.forsythe.com). “They need to have a solid backup plan as well as software and hardware in place.”

Assessing risks to establish a disaster recovery plan also involves looking at potential disasters that might affect some but not all components of a data center or network. Although less important on a scale of magnitude compared to, say, a fire

or earthquake that might physically destroy an enterprise, small-scale disasters are more frequent, such as when servers crash or UPS units malfunction. Such smaller-scale or mini-catastrophes also have the potential to bring down crucial servers, such as those that manage order taking or an enterprise’s customer interface application, without which an enterprise might not be able to function.

Preparing for such mini-disasters involves more of a micro-scale assessment of what could go wrong. For example, are the power feeds to server racks configured in such a way so that if one goes down, there is a redundant cable and electricity feed to maintain the power supply? Most admins have not prepared for this scenario, says Calvin Nicholson, director of product marketing for Server Technology (800/835-1515; www.servertech.com). “For proper redundancy, the end user still needs to ensure that each in-feed is properly



connected to the devices to ensure redundancy,” Nicholson says.

The Cost Factor

Investments in disaster recovery will also vary according to how much of the enterprise’s IT infrastructure has to be duplicated to maintain mission-critical applications in the event of a disaster.

“Cost is relative to the loss of data, so you should look to spend at least 5 to 10% of the overall IT budget in the pursuit and maintenance of a disaster recovery plan and data backup efforts,” says Adam Waxman,

Key Points

- A sound disaster recovery plan will ensure that mission-critical applications and data can be accessed quickly.
- Costs vary according to the enterprise’s critical applications and data that must be duplicated.
- Redundant copies of data or applications that are destroyed in the event of a catastrophe must be accessible offsite.

vice president of client services at ROBObak (www.robobak.com).

However, one rule of thumb is to pay careful attention to the cost analysis of the project before putting a potential plan in place, despite vendors’ pressure tactics intended to get you to pay for something that is not absolutely necessary.

“The biggest pitfall is overspending,” Croy says. “If you have a \$100,000 problem, it is important to not spend \$200,000 to fix it.”

For example, it is easy to overpay for storage and file copies that are not needed. “One pitfall is not looking at your data and therefore backing up too much,” Waxman says. “Why do you need temp files if you only back up at the file level and you will be doing complete backups of data that already exists elsewhere?”

More Than An IT Problem

Making sure that there is a plan in place to recuperate all the necessary data and applications to keep an enterprise running is a key component in a disaster recovery plan, but compliance measures also need to be addressed. For example, if all the data residing on your enterprise’s servers at the main business site were suddenly destroyed, are there backups of files that comply with, for example, NIST, Sarbanes-Oxley, or HIPAA guidelines?

This is when the legal department or someone else from the business side of your enterprise can offer input to help ensure that data backups meet the conditions of regulatory mandates. Such a person or group of people should also be well-versed in knowing what to do if the disaster recovery plan has to be followed. “Designate an alternate party in your company or perhaps one of your professionals, such as an attorney or accountant, as an alternate party for the recovery of your data,” Waxman says.

The Offsite Infrastructure

Whether it is a question of maintaining a duplicate data center site on a separate campus for mission-critical data or just creating backups of Exchange servers, a disaster recovery plan has to involve being able to access data and applications that are maintained offsite at some point. A data center’s servers may benefit from RAID 6 storage, for example, which virtually guarantees data recovery in case of disk failures, but such protection does little good if the data center burns down.

“If you locally store a backup to prevent a hard drive failure, you are missing the reality that disasters do happen to regular companies each and every day,” Waxman says. 

Group Issues Energy Policy Call To Action

The Copenhagen Climate Council, a group of business executives dedicated to creating global climate change awareness, recently released “The Copenhagen Call” paper at the World Business Summit on Climate Change. The document outlines six policy changes that the group believes will lead to greater economic sustainability as well as technological innovation and economic prosperity.

Among the points made in “The Copenhagen Call” are the need for a path to greenhouse gas stabilization and development of new green technologies, the need for effective measurement and reporting of emissions, incentives for enterprises to finance new green technologies, and greater deployment of existing technologies.

Such bold changes will impact enterprises, industries, the environment, and policy makers. Data centers are especially affected. According to Justin Gerdes, Journalistic Web Editor for the Copenhagen Climate Council, “Data center electricity consumption, operating costs, and greenhouse gas emissions are currently in danger of spiraling out of control. U.S. server and data center electricity consumption is expected to double [by] 2012—an annual cost of \$7.4 billion—and data centers can consume up to 100 times more electricity per square foot than a typical office building.”

Go Green

According to Gerdes, wise enterprises will employ these changes to become more green sooner rather than later. “There is real incentive to reduce costs and trim the industry’s carbon footprint now, before the arrival of a price on carbon in the United States, as the companies that get ahead on this issue will be the financial winners and industry leaders.”

Among the potential policy changes that could come down from the government include a federal cap-and-trade system, which may pass this year and be implemented as early as 2012. Regulations of this sort would inevitably lead to higher utility costs.

Gerdes continues, “As electricity prices are expected to rise under a cap-and-trade regime, data centers have considerable incentive to increase efficiency and reduce operating costs in the coming years. In the short term, we will see policies at the state and federal level that attempt to make today’s best practices in data centers business as usual.”

Gerdes sees these policies and regulations fundamentally altering the design and operation of data centers by encouraging them to tackle new technologies, innovate, and look to existing technologies for cost savings and carbon reduction.

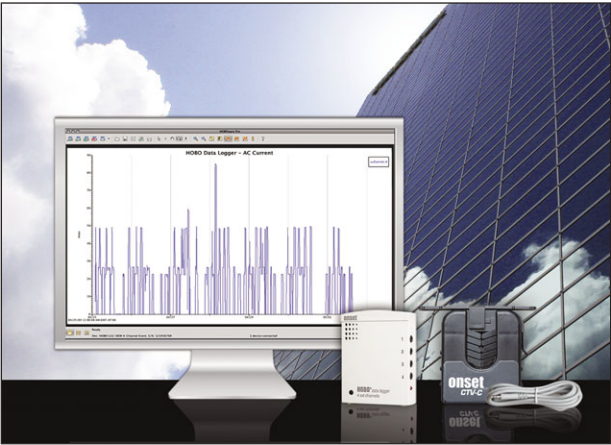
by Seth Colaner



Top Tips

- Test and audit the disaster recovery system on a regular basis, as even the most rock-solid preparations are worthless if they do not work properly the day a disaster does strike.
- Determine the RTO (recovery time objective). “The RTO will [indicate] how much time your company can withstand before you have to get back into production,” says Robert E. MacIntyre, vice president of business development and marketing for NetEx (www.netex.com).
- Keep alternative—yet secure—records of passwords. “Just because you can restore files does not mean you are able to open them,” says Adam Waxman, vice president of client services at ROBObak (www.robobak.com).
- In addition to checking that you can access backup data, it is important to also routinely check that you can restore applications and data on different types or brands of computers for quick recovery, Waxman says.

PHYSICAL INFRASTRUCTURE



Split-Core AC Current Sensors from Veris Industries and Onset plug into Onset's HOB0 U12-006 data loggers and can be left unattended to log amperage and current measurements for days, weeks, or months.

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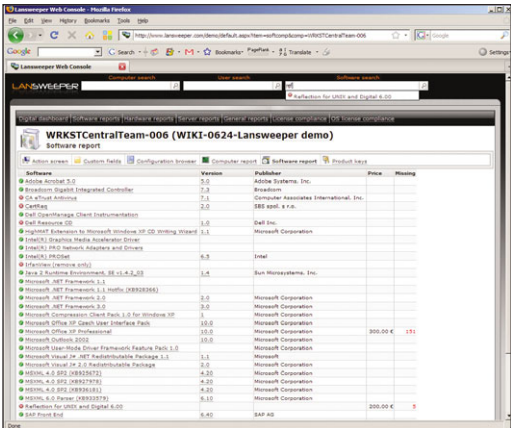
others looking for an inexpensive way to obtain basic power trending data.

The sensor suite consists of five compact, self-powered transducers that deliver AC load trending data for a variety of equipment, including pumps and motors. The CTV-A sensor supports 0- to 20-amp loads, the CTV-C supports 0- to 100-amp loads, the CTV-D supports 0- to 200-amp loads, and the CTV-E supports 0- to 600-

amp loads. The sensors plug directly into the external input jacks of HOB0 U12-006 data loggers. Users can also use the HOB0 U12-006 to log temperature and other parameters. Additionally, Onset offers its intuitive HOBOWare software for plotting and analyzing current data; graphing and analyzing trends; printing data files; and exporting the data to popular spreadsheet applications, including Microsoft Excel.



NETWORKING & VPN



Lansweeper v3.5.1 has been upgraded to help personnel better manage hardware and software inventories.

www.lansweeper.com

Free, Convenient Hardware & Software Inventory Management

Lansweeper v3.5.1

Keeping track of your company's hardware and software inventory can be a difficult job. With the upgraded Lansweeper version 3.5.1, however, that job can be less complicated and more cost effective.

Lansweeper v3.5.1 is designed to perform a comprehensive inventory of a Windows network without requiring the installation of an agent on all workstations or servers. For example, Lansweeper v3.5.1 will scan every client that logs on to a target computer, defined Windows users, and specific Windows groups. This allows you to analyze all of the details of your hardware and software for clients, administrators, and help desk staff. Additionally, the aforementioned personnel in your company will be able to control the assets through a user-friendly and intuitive Web interface. The Web interface will allow users to create custom reports, actions, scripts, and

more in order to alleviate the burden of their daily support work.

Lansweeper v3.5.1 is a freeware program that features more than 80 built-in reports, along with active directory incorporation, customizable actions, user photos, licensing reports, and the ability to calculate costs. There are no advertisements attached to Lansweeper v3.5.1, and it can be used with unlimited clients in a single domain. Additionally, Lansweeper v3.5.1 features Firefox support, scanning of unverified domains, and support for Vista and Windows 7 remote control.



NETWORKING & VPN



SEH's ISD400 and ISD410 Intelligent Spooling Devices reduce network congestion by offloading complex print jobs

\$2,899.99; \$3,333.99

(610) 933-2088

www.seh.de/english

Just Spool It

SEH ISD400 & ISD410

The more users that share a printer, the more they can unintentionally slow down the network. In this age of multichapter documents rife with charts, graphs, and photos, printing jobs can become a huge bandwidth drain on an unassisted corporate LAN.

Two new enterprise print spooling appliances from SEH are set to alleviate the network's print queue burden. The ISD400 and ISD410 handily offload print jobs to leave the LAN free for other traffic. Using an Intel Celeron 440 processor, 4GB of memory, and 160GB of storage space, these Linux-based appliances build on the feature set of SEH's popular ISD300, adding more horsepower and capacity. They support up to 450 users and 150 printers, including ThinPrint installations.

Both of these scalable 1U rack devices offer high availability for medium to large organiza-

tions, including those with branch offices and subsidiaries. The difference is that the ISD410 comes with a second hard drive and a RAID 1 controller. The 160GB capacity remains unchanged, but all print jobs are instantly mirrored on the second drive for redundancy.

The ISD400 and ISD410 both come with broad security measures ranging from a locking panel to encryption to password-protected settings menus. They support per-user access control via Windows Active Directory, along with IPv6. SEH backs them with a three-year hardware/one-year software warranty.



STORAGE



Axxana's Phoenix System RP provides zero-data-loss disaster recovery without distance limitations while helping save on traditional mirroring costs.

(781) 304-4890

www.axxana.com

Data Protection In The Face Of Disaster

Axxana Phoenix System RP

As Axxana puts it, an enterprise's ability to "recover from a disaster quickly and without losing data is no longer a luxury. It is a necessity." Whether an earthquake, flood, fire, power outage, or terrorist attack threatens, Axxana's Phoenix System RP is designed to protect and recover data. It leverages EMC RecoverPoint software, the disaster-proof Phoenix System Black Box appliance, and Axxana's EDR (Enterprise Data Recording) technology for a zero-data-loss solution that combines the advantages of synchronous data recovery with the cost- and distance-related advantages of asynchronous data replication.

Inspired by an airplane's flight data recorder, or black box, the Phoenix System's own resilient Black Box resides at an enterprise's primary location and can withstand temps up to 2,000 degrees Fahrenheit for one hour and 482 degrees F for six hours, up to 40G shock, 5,000 pounds of weight, and 30 feet of water pressure.

At the primary site, the RP Collector gathers data from RecoverPoint systems, encrypts it, and records it synchronously to SSD memory in the Black Box. At the same time, RecoverPoint asynchronously replicates data to a remote location. The RP Management Tool facilitates access and system monitoring from anywhere, and a Recoverer appliance at the remote site handles data recovery.

If disaster strikes, data can be extracted via physical connection to the Black Box's protected Ethernet port or wirelessly via the box's protected CDMA/GSM 3G transmitters and batteries, which support six hours of data transmission.



NETWORKING & VPN



Citrix GoToAssist Express & GoToAssist Corporate allow companies to more quickly resolve technical issues with customers and end users.

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Provide Instant Online Tech Support

GoToAssist Express & GoToAssist Corporate

Lowering costs and increasing productivity are always at the top of a company's priority list. Citrix Online offers solutions that can not only increase productivity and save on costs, but also bolster customer satisfaction and company reputation.

The GoToAssist® Express™ remote-support solution allows individual users and small businesses to provide instant online technical support to their clients. Customers can quickly receive simple, Web-based technical support, which in turn increases their satisfaction with the company. In addition to improving call-resolution times, solving more problems online also saves on support and travel costs. GoToAssist Express lets businesses offer support to both Mac and PC users. With

GoToAssist Express, companies can sign up online and set up their service in just a few minutes.

For larger organizations, Citrix Online offers its GoToAssist® Corporate™ service. Companies can remotely support all end users, regardless of their location, and enable a special team collaboration tool to resolve complex issues that may arise. GoToAssist Corporate also features quick and secure access to remote systems, as well as built-in surveys and reports that help companies demonstrate quick ROI.



NETWORKING & VPN

Supporting Today's Most Demanding Cloud Computing Data Centers

Juniper EX8216 Modular Ethernet Switch

The EX8216 modular switch, a member of the Juniper Networks EX Series of Ethernet switches, delivers the performance, scalability, and high availability required for today's high-density cloud computing data centers, campus core, and Internet exchange environments.

A member of the Juniper EX8200 line of modular switches, the 16-slot EX8216 offers a high-density, high-performance platform for aggregating access switches deployed as data center top-of-rack or end-of-row devices, as well as for direct-connect Gigabit Ethernet server access in data center end-of-row deployments. The EX8216 switch scales to a capacity of 12.4Tbps (terabits per second) and delivers about 2 billion packets per second of wire-speed 10 Gigabit Ethernet at all packet sizes, making it highly scalable.

To maximize network investments, the EX8216 leverages the same EX8200 wire-speed line cards and power supplies used by the eight-slot EX8208 modular switch, ensuring consistent performance across the entire product family. In addition, the EX8200 line, along with the EX3200 and EX4200 switch lines and Juniper routers and security services gateways, all run the same JUNOS® Software OS and are managed by a single application, NSM (Network and Security Manager).

The EX8216 modular switch also includes an advanced set of hardware features enabled by the Juniper-designed EX-PFE2 ASIC. Working in conjunction with JUNOS Software, the EX-PFE2 ASICs on each line card deliver the scalability needed to support high-performance data center networks.



The 16-slot EX8216 modular Ethernet switch from Juniper Networks delivers platforms for supporting today's most demanding cloud computing data centers.

Base pricing for the EX8216 modular switch begins at \$76,000.
(866) 298-6428
www.Juniper.net



CLIENTS



- dtSearch products have received hundreds of excellent press reviews.
- The dtSearch Web site also has hundreds of developer case studies posted at www.dtsearch.com.

dtSearch Version 7.6 releases cover both developer products, with new expanded sample code for use with Microsoft's most recent Visual Studio version, and enterprise products, with updates to the user interface.

(800) 483-4637 (800-IT-FINDS)
www.dtsearch.com

The Smart Choice For Text Retrieval® Gets Better

dtSearch Version 7.6 Releases Extend 64-Bit Capabilities In Enterprise, Developer Products

dtSearch, a leading supplier of enterprise and developer text retrieval software, has extended its 64-bit product line. The new release covers both dtSearch's enterprise and developer products, including native 64-bit versions. For the developer products, the new release provides expanded sample code for use with Microsoft's most recent Visual Studio version. For the enterprise products, the new release updates the user interface, providing a greater selection of "look and feel" options for users.

The Version 7.6 release includes: **dtSearch Desktop with Spider**, which instantly searches files on a PC, and **dtSearch Network with Spider**, which searches across a network. Both instantly search and display, with highlighted hits, a variety of file types, including email messages along with the full text of email attachments. Through the Spider, both applications can also add Web content to a local or network search.

dtSearch Web with Spider quickly publishes a large volume of instantly searchable data to an IIS Internet or intranet site. dtSearch Web works as a point-and-click solution, with no programming required. The Spider provides integrated support for local and remote Web site data.

dtSearch Publish lets users easily publish instantly searchable document collections or Web site content to portable media such as CDs, DVDs, and external hard drives.

The dtSearch Engine lets developers add dtSearch functionality to 32-bit and 64-bit applications. The **dtSearch Engine for Win & .NET** supports C++, Java and .NET, including a .NET Spider API. The new release provides expanded sample code for use with Microsoft's most recent Visual Studio version. The **dtSearch Engine for Linux** supports C++ and Java.

The dtSearch product line features: **Terabyte Indexer.** dtSearch products can index more than a terabyte of text in a single index. They can also create and simultaneously search an unlimited number of indexes. Indexed search time is typically less than a second, even across terabytes of data.

File formats and databases. dtSearch products include integrated file parsers and

converters for a wide range of popular file types. dtSearch products display existing Web-ready content (HTML, PDF, XSL/XML, etc.) with highlighted hits, and with all images, links, and formatting intact. For other file types, such as MS Office, OpenOffice, and ZIP, built-in proprietary converters render these document types as HTML, with highlighted hits, for display in a Web browser. The dtSearch Engine includes a data source API for indexing SQL-type databases and other non-file data, including BLOB data.

Spider. The dtSearch Spider adds local or remote Web site content to a searchable data collection. The Spider supports public sites, intranets, HTTPS, password-accessible sites, and forms-based authentication sites. The Spider supports both static and dynamic Web-based content, including ASP.NET, PHP, MS CMS, and SharePoint, indexing to any level of vertical or horizontal depth. dtSearch products support integrated searches of local and remote content, including WYSIWYG hit highlighted display of Web-ready data.

Search features. Full-text and fielded data search options include: distributed or federated search options with integrated hit-highlighted display, fuzziness adjustable from 0 to 10 (to sift through typographical and spelling errors), synonym/concept/thesaurus (through a built-in thesaurus and/or user-defined synonym rings), Boolean (and/or/not), phrase, phonic, wildcard, bilateral proximity, directed proximity, stemming, natural language/vector-space relevancy ranking, variable term weighting, positional scoring, field-based relevancy ranking, data classification and filtering objects, numeric range searching, advanced date recognition, unindexed search (in addition to indexed search), and special forensics search options (text filtering of forensically-recovered data, credit card search, email search, etc.).

International language support. Built-in Unicode support covers hundreds of international languages (including right-to-left languages and Chinese/Japanese/Korean character processing options).



STORAGE



Get Onsite & Offsite Backup

Barracuda Backup Service

The Barracuda Backup Service is an affordable, integrated local and offsite data backup and disaster recovery solution that combines an onsite appliance with a monthly subscription that replicates data to two offsite locations. Combining local and offsite storage provides the best of both worlds—onsite backups for the fastest restore times and secure, off-site storage for disaster recovery.

Designed for organizations of any size, the Barracuda Backup Server creates a local copy of data and efficiently transfers the data offsite without any additional burden on production servers. Offsite storage is monitored and managed by Barracuda Central as part of the Barracuda Backup Subscription, and tech support and emergency restores are included, as well.

Deployed in varied, complex IT environments, the Barracuda Backup Service protects mission-critical business information, utilizes industry-standard networking protocols to access data for backup, and is compatible with all major operating systems.

The Barracuda Backup Service Web control panel makes it easy to manage and back up data to multiple units at one or more locations—from anywhere. It also provides control of settings, reports, restores, statistics, and account information in order to manage Barracuda Backup Servers and Barracuda Backup Subscription plans. In addition, customers receive automated alert notifications via the Web control panel when conditions affecting backup service are detected.

Barracuda Backup Service
Integrates Local & Secure Offsite Backup For Disaster Recovery

Starts at \$49 per month
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www.barracuda.com/backup



NETWORKING & VPN



Cut Bandwidth Usage & Boost Productivity

Stampede Technologies FX Series 2000 & 4000

Are complex HTTP, SSL, Ajax, and XML applications dragging your data center and networking resources down? Are increasingly larger network loads flooding your enterprise with more traffic, resulting in overloaded application servers, out-of-control network activity, and dropped connections for customers or end users? Stampede Technologies' new FX Series 2000 and 4000 programs can help decrease bandwidth usage while simultaneously enhancing end-user productivity.

As part of Stampede's line of WAN optimization and application acceleration programs, both the FX Series 2000 and 4000 platforms can be installed as either a single-sided outbound optimization solution or, by adding remote software features, as a two-sided solution that provides a bidirectional (downlink and return channel) optimization tool. The single-sided option can reduce downstream bandwidth by 25 to 30%, while the bidirectional option can reduce bandwidth in both directions by as much as 75%. Using Stampede's client software, the bidirectional option also offers several deployment options.

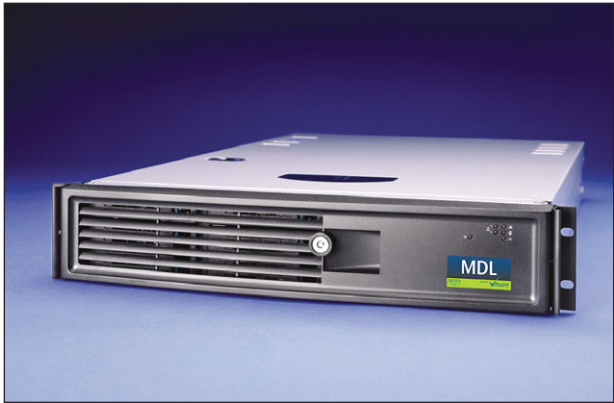
Disparities between the 2000 and 4000 platforms include pricing and hardware configurations that influence device throughput, SSL transaction throughput, and the number of concurrent sessions supported. Both platforms, however, provide up to 400% savings in bandwidth moving in both directions; a reduction of three to four times in end-user response time; easy scaling of low-, medium-, and high-volume networks; and load balancing, compression, SSL, and TCP offload functionality.

Stampede Technologies' new FX Series platforms, part of the company's line of WAN optimization and application acceleration solutions, decrease bandwidth usage while improving productivity.

\$40,000, FX 2000 Series; \$60,000, FX 4000 Series; client software \$50 per seat
(800) 763-3423
www.stampede.com



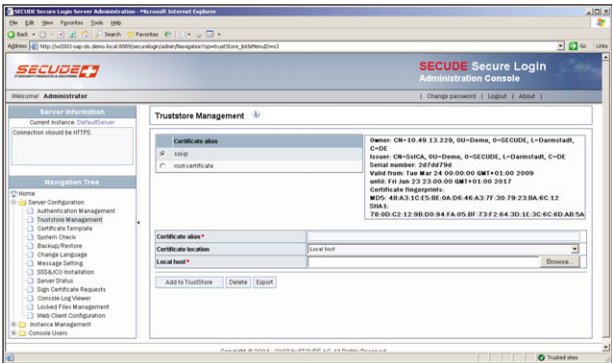
STORAGE



The Bus-Tech Mainframe Data Library Model 100V is designed to address tape needs for enterprises that want to use converged mainframe and distributed systems approaches to data protection.

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www.bus-tech.com

SECURE



Secure Single Sign-On for SAP NetWeaver is a Web-based authentication solution for SAP traffic encryption.

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www.secude.com

Add Value To Your VTL

Bus-Tech Mainframe Data Library Model 100V

Designed for the converged mainframe and distributed system backup market, the Bus-Tech Mainframe Data Library model 100V adds mainframe connectivity to VTL vendor offerings and provides data centers with a single backup vehicle for server environments. The MDL-100V connects to the VTLs as a server through dual Fibre Channel to implement a converged backup solution for all the servers in your data center. It's available with either FICON or ESCON mainframe channel attachment.

The MDL-100V was tested with key measurements on EMC's Disk Library, FalconStor Virtual Tape Library, Quantum's DXi 7500, and the SEPARON 52100-ES2—among others. The tests checked for connectivity/functionality, read/write performance, and deduplication effectiveness. The 100V can reduce mainframe tape management, risks, and cost without changes to your current mainframe tape applications or processes.

In terms of cutting costs, the MDL-100V can help eliminate the need for tape technology migrations, lower acquisition and ongoing costs, cut out manual tape handling, get rid of the need to send tapes offsite, and reduce environmental power and AC costs. The MDL-100V can also replace and complement your existing tape infrastructure by providing improved RPO and RTO capabilities and quicker disaster recovery and business continuation.



Reduce Implementation Costs With Web-Based Authentication

SECUDE Secure Single Sign-On For SAP NetWeaver

The rising total cost of ownership during economic decline poses a dilemma for IT security: how to reconcile high implementation costs and operational flexibility. SECUDE's new maintenance solution, Secure Single Sign-On for SAP NetWeaver, cuts down the time it takes to implement a full rollout. This performance standard is crucial considering the power of SAP NetWeaver as a scalable and flexible technology.

Because the SAP systems are central to managing critical data and stabilizing a business environment, SECUDE has designed its Secure Single Sign-On for SAP NetWeaver to enhance overall efficiency between SAP client and SAP server traffic. The Unified Single Sign-On software is incorporated in the SECURE Security Center, which automatically assesses and repairs vulnerabilities within the SAP NetWeaver environment.

Web-based authentication from SECUDE is ideal for small- and large-scale enterprises due to its support for a broad range of operating systems and its low implementation costs. Software components are required for SECUDE's authentication solution, which saves implementation time across the platform.

SECUDE Secure Sign-On for SAP NetWeaver runs on Windows, Mac OS X, Linux, and Unix; it also features user authentication for Active Directory, RSA SecurID, SAP UME, LDAP, RADIUS, and JAAS. As a software-based business solution, SECUDE for SAP NetWeaver ensures that IT maintains control over routine security checks.



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Automatic Transfer Switch—ATS



Standard Features

- Out-Of-Phase Source Switching
- 8-15ms Switching Time
- Programmable Dropout Voltage
- Programmable Switchback Voltage
- SNMP And HTTP With DS-Series
- PCB-Based Reliability
- Reports Volts, Current, Watts, VA
- Break-Before-Make Transfer

Provide Redundancy To Single-Corded Devices With The Ability To Switch Out-Of-Phase Sources In 8 To 15ms.

Providing redundancy on the power-circuit level is critical to maintaining uptime. The ATS Series provides a simple and reliable solution for automatically sensing power loss and seamlessly switching to a backup circuit. BayTech ATS transfer switch line offers a unique approach to performing the transfer by completely severing the connection between the source and load then waiting for the zerocrossing to perform the transfer. This is the driving force behind being able to perform out-of-phase transfers with

a low-cost solution. Monitoring Power on the ATS is a unique feature which provides information about:

- Amperage Load
- (Watts) True RMS Power
- Volt-amps
- Voltage
- Internal Temperature

By combining the ATS and the DS-Series, console server alerts on power and transfers can be sent via secure SNMP V3.

DS-RPC Remote Site Management Series



Device Management

- Console Port Management
- Remote Power Control
- True RMS Voltage/Current
- SNMP Support
- HTTP Power Control
- SSHv2/SSL Secure Access
- RADIUS Authentication
- Direct TCP Port Access
- Telnet/SSH Menu Device Selection
- Device Port Naming
- Individual Port Password Assignment

BayTech's DS-RPC Remote Management Series provides secure and reliable management for your network, servers, and console ports. The DS-RPC combines the powerful combination of power management and console access. The cost-effective DS-RPC Series is meant for single connection applications. Security features such as

SSH v2, RADIUS authentication, SNMP, and user access lists per port allow system administrators to remotely manage the DS Series with greater confidence and control. The selected host module provides either secure in-band or dial-up out-of-band access to your DS-RPC Series remote management solution.

PHYSICAL INFRASTRUCTURE

Switched CDU CW-24V2



Power cycle individual or groups of outlets to remotely reboot network devices.

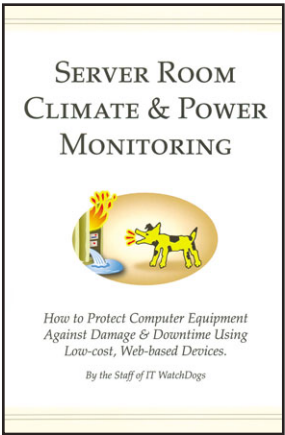
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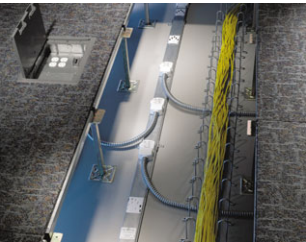


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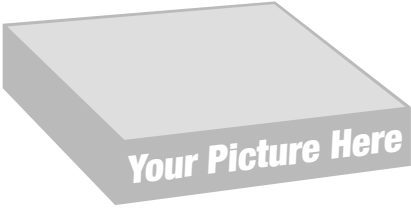
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PRODUCT RELEASES

CLIENTS

■ Datacap Taskmaster For Medical Claims v7.6

Datacap released version 7.6 of Taskmaster for Medical Claims for capturing, verifying, and storing medical claim records. Using the Rulerunner Service architecture, the Taskmaster for Medical Claims controls recognition, validation, and data exports. Other benefits include CMS 1500 support, UB-04 forms compatibility, the ability to capture “black” claims, and enhanced Open Text Recostar accuracy. Data verification occurs rapidly via the single-pass, modeless data entry interface.

■ Kyocera FS-C1020MFP

Kyocera released the FS-C1020MFP, a color multifunction printer for small and medium-sized enterprises that includes a 21ppm color rating, duplex printing and copying, and 35-sheet document processor. Other features include a 250-sheet paper drawer that’s adjustable; 256MB of memory that’s upgradeable to 512MB; monochrome and color scanning; and scan-to-PC, scan-to-email, scan-to-FTP, and TWAIN-scanning abilities. Specifications include the use of an ARM 400MHz CPU, 600 dpi resolution (up to 1,200 dpi interpolated), Windows and Mac support, and Super G3/Network fax system. A 500-sheet paper drawer is optional. The printer is priced at \$1,220.

■ Magic Power MPD-807H

Magic Power Technologies announced its compact DC-DC-ATX-compatible power supply, the MPD-807H, which can generate up to 100W with 8.6cfm forced-air cooling or up to 70W under convection cooling. The MPD uses an aluminum chassis to be more thermally efficient and dissipate heat and an open-frame design that is quieter, has a higher MTBF, and reduces dust. The MPD-807H operates over a wide 9 to 32VDC input range and provides overload and over-voltage protection.

■ Océ PRISMAenterprise

Océ introduced Océ PRISMAenterprise software, Web-based software that enables administrators to centrally manage accounting, authentication, and device information with tools that link applications and share them on one server. The company says that with the Océ PRISMAenterprise system, operator panel settings can be customized to specific users and made available on each MFP to improve user experience, provide fast data access, and increase productivity. The Océ PRISMAenterprise software includes the Device Manager, Account Manager, Authentication Manager, and My Panel manager applications. The tools systematically link applications, integrating and sharing them on one server.

■ Red Hat Fedora 11

Red Hat announced that its Fedora Project, a sponsored and community-supported open-source collaboration project, released the latest version of Fedora, a free open-source operating system. Fedora 11 features improvements in software management, sound, and key virtualization components. The firm also introduced users and developers to a portal project beta. Fedora 11 offers an upgraded

interactive console, a redesigned virtual machine guest creation wizard, and better security with SELinux support for guests. Other enhancements include automatic font and content handler installation using PackageKit, better fingerprint reader support, and an updated input method system for supporting international language users.

MESSAGING & TELEPHONY

■ HP Halo Webcasting , HP Network Lifecycle Services & HP Halo Managed Services

HP released its Halo Webcasting offering, which lets users employ Halo telepresence end points to produce Webcast content, in real time or on demand, and stream it internally or externally around the world. The offering supports up to three presenters from three different locations. All Halo end points, including the HP Halo Collaboration Studio, HP Halo Meeting Room, and HP Halo Collaboration Center, support the Webcasting capability. HP also realigned its HP Halo business with the HP ProCurve Networking business in order to deliver customers a single point of contact, sales, and reference. Services include HP Network Lifecycle Services and HP Halo Managed Services.



■ Polycom HDX 6000

Polycom announced its latest entry-level Polycom HDX 6000 room telepresence system, which features Polycom’s UltimateHD experience with HD video, voice, and content sharing capabilities. Features include 720p HD video quality (1,280 x 720) and 30 frames per second, starting at just 832Kbps. The offering also supports DVD-quality video (704 x 576) at 30fps, starting at just 256Kbps. Other features include Polycom’s 22kHz HD Voice in StereoSurround and the ability for users to share critical work in HD, including videos, spreadsheets, presentations, images, and more. The Polycom HDX 6000 starts at \$5,999.

■ TANDBERG Quick Set C20

The TANDBERG Quick Set C20 is a 1080p videoconferencing system for SMEs. The Quick Set C20 is an inexpensive and compact system with an emphasis on ease of use. The solution comes with a remote control and a microphone and can plug into any HD display for immediate videoconferencing capabilities. There’s also an enhanced version, the TANDBERG Quick Set C20plus. This exceeds the regular C20 camera’s 4X zoom with 12X capability. The C20plus is also capable of an alternate 720p60 mode.



NETWORKING & VPN

■ AdRem Server Manager 7

AdRem Software announced a version of AdRem Server Manager 7 for Novell

OES server monitoring and maintenance in both OES Linux and NetWare platforms. Server Manager 7 centralizes the administration of all platforms of Novell OES and helps to keep systems monitored and maintained. Server Manager 7 OES Linux can monitor more than 100 Linux performance counters and perform several Linux maintenance tasks.



■ Advantech PoE Switches

Advantech announced two PoE (Power over Ethernet) switches, the 5-port, 24V EKI-2525PA and 6-port EKI-2526PI. The switches combine a compact, unmanaged Ethernet switch with PoE technology to connect and power Ethernet devices over a single Ethernet cable. Both the EKI-2525PA and EKI-2526PI are ideal where panel space is limited and are also ruggedized for demanding industrial applications, with redundant power inputs, 4,000V Ethernet ESD protection, and power line protection of 3,000V.



■ Belkin AV360 Modular AV System & CAT 5e Extender

Belkin announced its AV360 Modular AV System and its CAT 5e Extender connectivity solutions. The solutions are designed for use in conference rooms, higher education, and hotels. They can support video displays up to 1080p resolution at 100 meters and up to UXGA at 300 meters. The AV360 provides a simple, color-coded, plug-and-play connection for digital signage and audiovisual solutions, while the CAT 5e Extender runs HDCP-compliant HDMI technology over a single CAT 5e cable.



■ Blade Network Technologies & Bell Microproducts 10 Gigabit Ethernet Cloud Ready Network Architecture

Working in conjunction with Bell Microproducts, Blade will be shipping its 10 Gigabit Ethernet solutions as part of its Cloud Ready Network Architecture. Blade’s RackSwitch top-of-the-rack switches will endow the platform with the low-latency, high-bandwidth connectivity necessary for scalable cloud computing, Blade says. Additionally, Blade is offering flexibility through its partner program by enabling mainstream data center solution providers to add value to its Cloud Ready solutions in combination with HP or IBM blade server solutions that are equipped with Blade’s server switches.



■ BlueCat Networks Proteus v3.0

BlueCat Networks unveiled the latest version of its Proteus IP Address Management solution. Proteus v3.0 delivers a more streamlined approach to IP address management. Both system administrators and users are sure to appreciate the redesigned user interface, improved DNSSEC capabilities with NSEC3 for added security, integrated monitoring/reporting dashboards, improved scalability, and superior fault tolerance. Customers will also receive free virtual appliances for use in lab testing, modeling, and change and update

verification. Proteus v3.0 is available to all current customers with a valid support and maintenance agreement at no extra cost.

■ Connectivity Technologies Asset Tracking System

The CTI ATS (Asset Tracking System) is a solution focused on enabling data centers to automatically track and inventory assets within the specified environment. This capability significantly reduces lost or misplaced assets by leveraging RFID tags and strategically placed antennas. ATS allows data center managers to track movement



through portals and predefined zones in the building and lets managers know the last time an asset was moved. In addition, inventory is quick and simple via handheld scanner to identify assets. This feature is also useful when trying to find a single asset, whether it be for inventory purposes or in an application outage situation when the physical asset must be accessed.

■ Daily RFID Asset Management Solution

Daily RFID released RFID Asset Management, which the company says is a cost-effective means to track and manage mobile and fixed assets. The manager can operate at 13.56MHz and assists companies in tracking and securing assets with little human intervention required. The approach integrates RFID asset tags and a multitag RFID reader. Each tag comes with a unique ID, and a customized logo is also available. The DL810 RFID reader uses an anti-collision algorithm to let a stack of tagged assets be scanned simultaneously. Additionally, the company says a handheld DL8033 reader helps find assets, even if they are placed in the wrong location. Users can deploy and track the solution automatically as tagging assets move in or out.

■ Dell Virtualization Products & Consulting Services

Dell released several virtualization products and consulting services designed to improve data center performance and simplify management. The Dell PowerEdge servers and EqualLogic PS4000 storage array are ideally suited to the demands of virtualization and high-performance computing. The Dell ProConsult offerings consist of platform optimization and virtualization, data center planning and management, disaster recovery, data management, and facilities efficiency.



Dell’s Data Center Virtualization Configuration offering consists of Dell PowerEdge M-series blades and EqualLogic PS6000 iSCSI storage technology. The Small and Medium Business Virtualization Configuration consists of the PowerEdge R710, Dell PowerVault MD3000i, and the Symantec-powered PowerVault DL2000. Dell also announced virtualization solutions, including enhanced hypervisors, disaster recovery, and application virtualization. Dell’s tailored management solutions include the Dell Virtualization Management toolkit, virtual infrastructure capabilities, and virtual server remote monitoring and reporting. Other products include the EqualLogic

PRODUCT RELEASES

Continued from Page 15

PS4000 storage array, PowerVault NX3000 NAS device, and Intel Xeon 5500 series processor-equipped PowerEdge servers.

■ Entrust Solutions

Entrust has announced new technologies designed to streamline and securely connect the Apple iPhone to a company’s corporate network. Entrust enterprise customers can now use X.509 digital certificates for remote access authentication through a built-in Cisco IPSec VPN client. A password, two-factor token, or digital certificate will allow employees to authenticate. Additionally, the iPhone supports WPA2 Enterprise with 802.1X authentication, which is the standard for Wi-Fi network security. Finally, Entrust also provides strong authentication capabilities, such as out-of-band OTP transaction authentication via SMS, voice, or email; SMS soft tokens; and the Entrust eGrid program.

■ Fluke Networks JackRapid

Fluke Networks announced interchangeable blade heads for the JackRapid termination tool for Panduit Netkey CAT 5e and CAT 6 Punchdown Jack Modules. Using one squeeze, the JackRapid termination tool can help technicians increase installation efficiency, which ultimately saves labor costs. JackRapid’s jacket stripper eases the stress on hand installation due to its ergonomic design. The interchangeable termination head boasts a style that’s compatible with close-to-wall installations; it’s also accurate, safe, and supports various jack styles.

■ GlobalSCAPE WAFS Solution

GlobalSCAPE released the most recent version of the WAFS (Wide Area File Services) solution. Compatible with the Autodesk Revit Architecture construction and design application, WAFS enhances data replication and collaboration. In general, WAFS mirrors user files through byte-level differencing. WAFS features include automatic access to remote files, real-time file locking, continuous backup, offline availability, and secure encryption.

■ ManageEngine Desktop Central

ManageEngine announced an update for Desktop Central, its Web-based Windows Desktop management software. The update will control the usage of USB devices on desktops across the enterprise. Users will be able to enable or disable specific USB devices, create and apply policies regarding USB access based on employee role or department, and generate reports on policies and the users and computers that are governed by them.

■ Meru Networks E(z)RF Network Manager 2.0

Meru Networks announced E(z)RF Network Manager 2.0, a wireless LAN management system designed to record every client-network wireless protocol interaction rather than merely gathering aggregate statistics. Using continuous event recording, data mining, and a knowledge-based inference engine to reduce troubleshooting time, E(z)RF Network Manager 2.0 allows users to re-create past event sequences on the WLAN to quickly pinpoint the causes of client problems. E(z)RF Network Manager 2.0 allows management of up to 25,000 access points and the ability to rapidly drill down and view activity details at each level of the infrastructure.

■ Meru Networks E(z)RF OnTheGo

Meru Networks announced E(z)RF OnTheGo, a wireless LAN management tool for smartphones. E(z)RF OnTheGo is designed to allow network administrators to work away from their desktop consoles. Features include customizable dashboards,

high-priority alerts, and the ability to manage the networks anytime, anywhere. Users can initiate immediate context-aware network actions while away from their desks. E(z)RF OnTheGo is browser-based and requires no software downloads.

■ Riverbed Technology Cascade 8.3

Riverbed Technology launched the newest version of its Cascade offering, which is a WAN optimization solution. Cascade 8.3 delivers an enhanced level of automation, ease of use, and consolidated enterprise visibility. Features include Steelhead appliance auto-detection and several one-click reporting capabilities, including overall WAN analysis, optimization candidate analysis, optimization benefit analysis, and site capacity analysis. Cascade 8.3 is currently available as a standalone platform or as an application that works on Steelhead appliances.

■ Savi Technology Savi SmartChain 6.0

Savi Technology has announced Savi SmartChain 6.0, which is a program designed to manage assets, inventory, and shipments within organizations and throughout their supply chains around the globe. According to Savi Technology, SmartChain 6.0 is engineered to easily incorporate AIDC (Automatic Identification and Data Capture) technologies, such as barcodes, IUID, RFID, GPS, and sensors, into current business processes. Additionally, SmartChain 6.0 gives users a comprehensive software toolkit to simplify adding and transforming real-time data from AIDC technologies.

■ Voltaire Vantage 8500

Voltaire announced the Vantage 8500, a 10Gb Ethernet switch that is optimized for enterprise data centers and cloud computing environments. The switch is designed to be the industry’s largest nonblocking 10Gb Ethernet switching platform and is designed to enable users to benefit from new levels of efficiency, scalability, and lower latency while simplifying and consolidating network tiers to lower infrastructure expenses. Features include 288 wire speed, 10Gb Ethernet ports in a 15U-high chassis, and a scale-out stacking option.

PHYSICAL INFRASTRUCTURE

■ Emerson Network Power Liebert XD

Emerson Network Power added Liebert XD Smart Modules to its Liebert XD high heat-density cooling solutions. Ideal for hot aisle/cold aisle environments, the Liebert XD Smart Modules ensure the optimization of energy efficiency. The Liebert iCOM control system incorporates two Web-compatible slots and building management system card integration. This system also records maintenance history.

■ Minicom Advanced Systems Sentry Cabinet Power Distribution Switched Product Family

Minicom Advanced Systems launched the Sentry Cabinet Power Distribution Switched Product family, which utilizes central power capabilities for remote access servers via KVM. Access management is available through single-point functionality for high efficiency. The Sentry Cabinet Power Distribution Switched Product family supports access services such as VMware, RDP, VNC, SSH, Telnet, HP iLO, Web access, and custom applications.

■ Pelican Products Injection & Rotationally Molded Cases

Pelican Products announced that following its acquisition of Hardigg Industries, it will offer injection and rotationally molded cases. Rotationally molded cases are created by loading structural-grade plastic resin into a series of molds, which are heated and slowly rotated on both a vertical and

horizontal axis. The resulting case offers a seamless base and lid for excellent impact protection. For example, the Black Box Rack Mount Cases (one of Pelican’s new product offerings) are compact, double-ended cases that offer light- to medium-duty protection. The case shells feature recycled material on the outside and a sturdy prethreaded steel frame system. Pelican also offers extra-large shipping cases (10 models), which are shock-proof, watertight, and chemical-resistant, in large, X-large, or XX-large sizes, and the company offers specialty products (seven



models) that are portable workspace and equipment protection solutions.

■ Server Technology CW-24V

Server Technology released the CW-24V, a mixed-outlet CDU (cabinet power distribution unit) for overhead power and busways. The CW-24V offers 18 IEC C13 outlets, six IEC C19 outlets, and one NEMA 5-20R 110V outlet, and the switched CDU has middle entry for network, serial, and environmental connections, as well as a top power cord entry. The ports and LED current monitors are halfway up the 69-inch vertical tower, and the local current monitor can be inverted via the Web GUI or serial interface to provide True RMS. You’ll see current draw (in amps) on each power circuit, ideal for onsite verification. The three-phase model delivers 208 to 240V at 30 amps, with 24 outlets on the CDU.

■ Stulz Air Technology Systems EC Fans

Stulz-ATS announced that its remote outdoor air-cooled condensers are available with optional EC plug fans. The EC fans convert AC to DC to allow for infinitely variable fan speed adjustment by continuously permitting the speed of every fan to match the airflow and cooling requirements of the condenser. The EC fan technology delivers higher fan efficiency, energy savings, and the ability to reduce noise and vibration as airflow requirements and speed



are reduced. Additionally, Stulz-ATS offers a full line of heat rejection equipment to complement its air conditioning products (ranging from 1.5 to 70 tons).

SECURITY

■ FinallySecure Enterprise Single Sign-On 7.0

FinallySecure released version 7.0 of its eSSO (Enterprise Single Sign-On) software. The updated version offers better protection, improved user convenience, and superior cost effectiveness for enterprises. Version 7.0 of eSSO delivers enhanced support for Web, Windows,

Java, and Terminal applications as well as a brand-new learning wizard for user convenience and ease of administration. With eSSO, users only need to remember one password. eSSO 7.0 is equipped with typical Enterprise Single Sign-On features, such as Sign-On to Web and Windows applications and broad support of smart cards, USB tokens, and biometric devices.

■ Lieberman Software Account Reset Console 5.0

Lieberman Software unveiled Account Reset Console 5.0, which is designed to offer increased user password protection as well as better enterprise performance and scalability. This version adds RSASecurID authentication and native 64-bit Windows support. The addition of RSASecurID will add multifactor authentication ability, the company says, meaning only staff members in physical possession of a hardware authenticator and credentials can access passwords via Account Reset Console. Additional features include a Web site feature that allows separate consoles to communicate with the same database and synchronize with one another, multiple verification notification that lets IT staff know of multiple self-verification failures, and user-select verification that lets users choose from IT-defined verification queries for easier enrollment.

■ Novell Compliance Management Platform Extension For SAP

Novell released the Compliance Management Platform extension for SAP environments, which Novell describes as a cost-effective solution for managing access and security problems across SAP and non-SAP systems. Using the company’s provisioning abilities, users can integrate the ID and security data in their SAP solutions with other business apps, thus reducing the time required on manual IT compliance. The 1.0 version is certified for integration with the SAP BusinessObjects Access Control application. Together, the platform and access control application offer visibility throughout an entire enterprise and control over network resources, ERP apps, and mission-critical business apps.

■ Palo Alto Networks PAN-OS 3.0

Palo Alto Networks introduced PAN-OS 3.0, which is an operating system for its firewalls. PAN-OS 3.0 includes new QoS features, along with a fully integrated SSL VPN in order to further enable enterprise customers to utilize new programs while controlling the risks that come with using those applications. PAN-OS 3.0 offers traffic shaping in its firewall, which prioritizes business-critical functions. It also provides program visibility and fine-grained control capabilities that offer enterprises a broad range of flexible policy responses to applications, such as to allow, to deny, to allow for certain users or functions, and threat scanning.

■ Stonesoft StoneGate IPS-1030

Stonesoft released the StoneGate IPS-1030 appliance, a network protection appliance that features the ability to inspect encrypted Web traffic, which eliminates the traditional blind spot in network protection. The StoneGate IPS-1030 provides protection for corporate network users and public Web services against attacks concealed inside the encrypted Web connection. The StoneGate IPS provides a controlled way to open the encryption in the network and submit the encrypted Web traffic for the same inspection as the clear-text data. The StoneGate IPS-1030 is also designed to meet the perimeter protection needs of branch offices and MSSPs (managed security service providers) responsible for organizations’ network security.

PRODUCT RELEASES

■ Venafi Encryption Director V.1

Venafi announced the availability of its Encryption Director V.1, an encryption management platform that centralizes and automates the management of encryption assets throughout the IT infrastructure, such as keys, certificates, and application configurations. Encryption Director V.1 features Enterprise Discovery, which includes network-based discovery of encryption technologies to inventory all keys and certificates deployed and in use, continuous monitoring, configurable notifications and alerts, and policy enforcement and compliance reporting.

SERVERS

■ HP Extreme Scale-Out Portfolio

HP unveiled the HP ExSO (Extreme Scale-Out) portfolio, which is engineered to help enterprises using Web 2.0, cloud, and high-performance computing save money and resources. Organizations with scale-out business models will benefit from the HP ExSO portfolio because it offers lightweight, efficient modular systems architecture and applies to all data center programs, services, and support to cut costs, boost facility efficiency, and quicken the time to market on a large scale. The HP ExSO portfolio offers the HP ProLiant SL server family featuring a skinless system architecture to replace traditional chassis and rack form factors with a lightweight rail and tray design.

SERVICES

■ SoftLayer CloudLayer

SoftLayer Technologies announced new features to its CloudLayer cloud services, including changes to billing, bandwidth usage, core and RAM, uplink port speed, and additional disks. Many of the features can be upgraded using SoftLayer’s Customer Portal. The updates are processed automatically and are completed within a few minutes. Benefits of CloudLayer include pay-as-you-go or monthly billing packages, immediate scalability, and ease of use.

STORAGE

■ Addonics HDD Duplicator Family

Addonics announced a family of hard drive duplicators that includes the HDD Duplicator, Duplicator Pro, Duplicator Pro S, and Zebra HDD Duplicator. The company says the Duplicator Pro can copy data from any type of source drive, from 2.5- and 3.5-inch or SSD drives with either SATA or IDE interfaces, and to any type of target drive, making the Duplicator Pro ideal for cloning, backing up, or quick data migrations. The

Duplicator Pro S can be used to create copies from hard drives to target drives complete with AES 256-bit encryption. The duplicators can function as standalone devices and don’t require special software.



Copy speeds reach up to 150MBps. The HDD Duplicator starts at \$249.

■ Arkeia Network Backup Version 8.1

Arkeia Software released Network Backup Version 8.1, which contains features that make managing backups in shared, hosted, and multitenant environments easier. Additionally, Arkeia says the release speeds up cloud computing by cutting costs and the difficulty of restoring customer data and tracking backup-service usage in shared, hosted settings. With this release, MSPs (managed service providers) can deliver more customized backup abilities to customers within a secure, scalable, and granular system. The release is currently in beta form, with a general release scheduled for this summer.

■ Asigra Hybrid Cloud Backup & Recovery Platform

Asigra released its ninth-generation Asigra platform, the Asigra Hybrid Cloud Backup and Recovery platform. Through simple migration methods, Asigra moves the internal data center to a cloud service without the hassle of reinstalling recovery software. Asigra employs an agentless approach that includes continuous protection, replication, data deduplication, and lifecycle management. Backup and Recovery offerings run on a multisite license without having to purchase or install new agents. The Asigra Hybrid Cloud Backup and Recovery Platform starts at \$300.

■ ATTO Technology Celerity 8Gb & 4Gb Fibre Channel Host Adapters

HP has qualified ATTO’s Celerity 8Gb and 4Gb Fibre Channel Host Adapters for use with its new StorageWorks EVA (Enterprise Virtual Arrays) 6400 and 8400 as a high-availability enterprise storage solu-

tion for the Mac market, ATTO says. The 8Gb and 4Gb FC host adapters benefit from a new driver created by ATTO for Apple systems, which affords failover protection for



the HP EVA storage solution, according to the company. The dual-channel PCI Express and PCI-X HBAs connect to the EVA using an FC switch as an intermediary.

■ B&L Associates Vertices 5.1

B&L Associates released the latest version of its Vertices tape and media management software solution. Vertices 5.1 features an intuitive Web-based user interface that lets data center administrators take greater control over their tasks and security. Vertices 5.1 lets users generate lists faster than they could with Vertices 5.0; search journal history and print results; create retention maps and movement paths; add tapes to “Move, Scratch, and Replace” lists; take advantage of enhanced administration tools; create and manage users, security preferences, email alerts, and FTP profiles; reconcile the previous day’s move list with offsite vendors’ daily transaction file; and integrate with Imation’s DataGuard rf Tape Tracking System. For current customers, Vertices 5.1 is a free upgrade.

■ Diskeeper V-locity

Diskeeper released its virtual platform performance optimizer, V-locity, for Microsoft Hyper-V. V-locity cuts down on wasted disk space as it compresses the virtual hard disk and optimizes storage resource allocations. V-locity has a certified defragmenter for Hyper-V and includes V-locity Host for Windows Server 2008 and V-locity Guest for Windows virtual machines.

■ Enhance Technology EnhanceRAID TS2060 Series

Enhance Technology’s EnhanceRAID TS2060 series offers real-time D2D (disk-to-disk) and D2D2T (disk-to-disk-to-tape) functionality in a 2U, six-drive package. The RAID 5/6 device’s options include dual PSUs and separate internal or eSATA backup devices (CD/DVD/BD, tape, or hard drive). It’s available as the TS2060-SS for SME SAS backup and the enterprise-level TS2060-IP for custom OEM, VAR, and provider designs. The latter provides dual Gigabit Ethernet and iSCSI connectivity.

■ Future Systems Solutions Casper Secure Drive Backup For PGP Whole Disk Encryption

Future Systems Solutions announced Casper Secure Drive Backup for PGP Whole Disk Encryption, which the company says is the “first and only” PC backup solution that confronts the issues affecting those who use whole disk encryption technology. Users can take advantage of the strong level of security PGP Whole Disk Encryption can provide because Casper Secure Drive Backup delivers the same level of security for a backup that whole disk encryption delivers when ensuring sensitive data is fully secured on a PC. Casper Secure Drive Backup (available as a download from Future Systems Solutions for \$89.95) makes it easy to back up and restore any PGP-encrypted drive or RAID recognized by Windows.

■ Isilon & Atempo File-Based Backup Partnership

Isilon and Atempo announced a partnership in which the companies have released an integrated, enterprise backup product that combines Isilon’s Back-up Accelerator product with Atempo’s Time Navigator software. The companies say the product integrates into any IT setting and will reduce the length of backups while reducing costs. Time Navigator offers backup and recovery functionality for tiered-data protection. When paired with Back-up Accelerator, the software simplifies backup windows and IT requirements by streamlining backup functions, the companies say.

■ Kroll Ontrack Data Recovery

Kroll Ontrack announced data recovery capabilities for Apple’s Xsan 2 clustered file system for Mac OS X, which will allow users to recover data from an Xsan server that has encountered a volume corruption. Using the new data recovery capabilities gives users another alternative for their data protection needs, rather than being forced to reinitialize data servers when file corruption occurs.

■ Winchester Systems v-IP SAN

The v-IP SAN is Winchester’s virtual iSCSI storage appliance, and it focuses on low cost and ease of setup. Based on a hardware-controlled RAID 6 array, it uses Ethernet cabling to provide pooled storage, archiving, encryption, and backup. The v-IP SAN supports major virtual server software such as Microsoft Hyper-V, VMware, Citrix XenServer, and Virtual Iron. In addition, with multiple v-IP SANs, you can create high-availability clusters with failover protection. Pricing starts below \$15,000.



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Microsoft Launches Service Pack 2 For Windows Vista & Server 2008

Microsoft just released Service Pack 2 for Vista and Server 2008, each of which consists of all previous updates since SP1 (which is a prerequisite for installing SP2), delivers additional support for new types of hardware and emerging hardware standards, and simplifies the updating process for users and administrators. With SP2, IT administrators can deploy and support a single service pack for clients and servers alike. The download also features operating system tweaks discovered through automated feedback.

What's New

Microsoft sums up SP2 in terms of hardware ecosystem support and enhancements, operating system experience updates, and enterprise improvements. New hardware ecosystem support and enhancement features include the ability to record data to Blu-ray Discs, added support for Bluetooth v2.1, and added support for the Windows Connect Now Wi-Fi configuration wizard. Also in this category are improved Wi-Fi performance after resuming from Sleep mode, support for additional smart card standards, and fixing the CPU ID and CPU Vendor strings of the recently launched Via Nano 64-bit processor, which showed up incorrectly under SP1. SP2 also brings with it support for exFAT (Extended File Allocation Table), which is aimed at large-capacity flash drives.

SP2 features that fall under the category of operating system experience updates include a new Registry key that aims to increase P2P application compatibility, improved content



protection for TV in Windows Media Center, optimized memory and CPU consumption for Vista Sidebar and the RSS reader Gadget, and Windows Search 4.0. There's also improved power management capabilities that should improve notebook battery life.

Under the category of enterprise improvements, SP2 adds Microsoft's Hyper-V virtualization environment and lets users and administrators manage server and desktop power management settings via group policy.

SP2 also delivers updates to third-party application compatibility, including the added ability for Spysweeper and ZoneAlarm to work with POP3 email accounts, and increased authentication options for WebDAV redirector. The standalone installer for SP2 is 390MB for the x86 version and 622MB for the 64-bit version. When installed through Windows Update, the x86 versions for Vista and Server 2008 are 43MB and 47MB, respectively. The 64-bit versions for Vista and Server 2008 are 60MB and 90MB, respectively.

by Andrew Leibman

FEATURED PRODUCT

Dealing With Old Tape Media

Recycle Your Media Offers Environmentally Responsible Option

by Drew Robb

. . .

OVER THE COURSE OF MANY YEARS, companies accumulate literally thousands of backup tapes. Many of them sit gathering dust for years until the day they need to be gotten rid of. So what do you do with them? Throwing them away is a dangerous business. Who knows who might happen across them and find customer records, Social Security numbers, credit card data, and more? Tapes must be disposed of responsibly.

When it comes to disposing of hundreds or even thousands of tapes, the only really safe way is to track what is done with each and every tape using serial numbers, providing written confirmation that 100% of

with total assurance and documentation of a completed process for each and every tape."

Such caution is required to eliminate the possibility of undetected interference with the deletion or destruction process. Recycle Your Media has to gain the confidence of existing and prospective customers so they are willing to hand over their confidential information.

Musil takes the entire cycle very seriously for good reason. According to IT analyst firm Enterprise Strategy Group, lost or stolen data can cost a company anywhere from \$25 to \$150 per record. If a backup tape gets into the wrong hands, and it contains 1 million records, that equates to as much as \$150 million. That's not including other costs such as damage to reputation, loss of business, stock declines, and possible legal action.

Alternative Approaches

There are alternatives to the in-depth approach taken by Recycle Your Media. Some companies simply pack up all their tapes, haul them offsite, and burn them in an incinerator. Others mail them to another facility for erasure. There are even stories of firms that shred their tapes in the company parking lot, according to Musil. The problem with any of these methods is accountability. There really is no way to know—and prove to management, stakeholders, or perhaps prosecuting lawyers—that one or more tapes did not end up in the wrong hands.

"You have to verify [that] who you are doing business with is taking care of data disposal in a safe and environmentally friendly manner," says Frances O'Brien, a Gartner research vice president. "There are cases on record of companies hired to destroy data that just dumped it at the side of the road or in a landfill, and the customer then had to pay to get things cleaned up."

While some suppliers physically destroy the tape, Recycle Your Media does not, in most cases. Instead, the company deletes everything with manufacturer-approved processes that completely erase the tapes so there is not the slightest trace of information remaining on them. According to Musil, the whole purpose of doing this is to minimize landfill usage, cut down on pollution, and support the environment.

The business model is simple: Recycle Your Media buys any tapes that are no longer needed by companies around the country. In exchange, it takes care of the delicate business of information destruction

RecycleYourMedia



SECURE END OF LIFE
DATA SOLUTIONS

the tapes have been destroyed or completely deleted. If business owners could find a way to ensure that occurred, they could rest easy knowing that tape data would never end up in the wrong hands.

Data Destruction Service

Recycle Your Media of Newport Beach, Calif., (877/798-2737; www.recycleyourmedia.com) does just that via its data destruction service. Tapes are individually scanned, inventoried, and boxed for shipment, leaving a detailed receipt for all tapes removed, and secure transport with chain-of-custody records confirms status and delivery into Recycle Your Media's secure facility to provide end-to-end documentation of all the steps followed along the transportation path.

"Tapes are individually numbered to help keep track of them from the get-go," says Brian Musil, acquisitions manager for Recycle Your Media. "Tape owners are left

"There are cases on record of companies hired to destroy data that just dumped it at the side of the road or in a landfill, and the customer then had to pay to get things cleaned up."

- Gartner's Frances O'Brien

contact

**Recycle Your Media
Data Destruction Service**
(877) RYTAPES (877/798-2737)
www.recycleyourmedia.com

Description: Buys tapes that are no longer in use. It then uses manufacturer-approved processes to delete all information on tapes while tracking each tape individually to prevent security breaches.

Interesting Fact: Recycle Your Media prides itself on its socially and environmentally responsible business practices, working to fulfill its mission of recycling, minimizing landfill, and providing earth-friendly products.

and does it in a way that provides ample evidence to outsiders. Recycle Your Media then sells the tapes to other users or destroys them if they have no remaining value.

"Our purpose of recycling media is to resell the reusable tape cartridge after we have securely and completely eradicated all of the data on the tape," Musil says. "We usually purchase the tape media directly from the company that originally used the tape for backup purposes."

An Example

Musil offers an example of how this works. Let's say Recycle Your Media pays \$10 per tape for a used tape that is in the LTO-2 media format. It might cost Recycle Your Media \$2 per tape to perform an audit onsite and give a full report of chain of custody and evidence of destruction. That cost is then deducted from the value, and the customer would then receive \$8 per tape. Thus, popular tape formats have an obvious value proposition.

"Bulk tape destruction creates potential security issues in the logistics of moving and handling large batches of tapes: Who has the tapes? Which tapes do they have? Have they all been destroyed? When? Every tape?," Musil says. "The solution is certified data destruction. We can handle 100 tapes or 100,000." P

Formats & Brands

Recycle Your Media takes tapes in quantities of 100 to 50,000 or more and can work with the following tape formats:
SUPER DLTII / LTO2,3,4 / AIT1,2,3,4 / AME2 / 9940 / 3590J / 3590E / MLR, SLR / TR5,7 / VXA / V23

Recycle Your Media accepts tapes from virtually all suppliers, including HP, Certance, Seagate, Quantum, Sony, Maxell, Imation, FujiFilm, Verbatim, TDK, and EMTEC.

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It's About More Than Plugging Cable Openings

Most cost-minded data center managers realize that the best practice of sealing cable openings not only helps achieve cooling and airflow efficiencies, but greatly reduces operating and capital expenditures. In fact, sealing even the smallest of cable openings helps manage thermal and airflow challenges for total data center optimization. Upsite Technologies expanded the KoldLok® family of engineered sealing solutions with the KoldLok Mini Raised Floor Grommet to help the data center industry optimize their cooling and airflow power, and maximize their costs.

Designed with virtually all of the original KoldLok features, the fire-rated KoldLok Mini Raised Floor Grommet at 4 x 6 inches (100 x 150 mm) is engineered to be the most effective and smallest sealing solution available.

“The KoldLok Mini Grommet is designed to meet smaller cable opening standards specified in new builds, and works well in retrofits. What conscientious data center managers realize is sealing even a small opening can have a positive effect on existing cooling unit capacity,” says Michele Galleazzi, KoldLok Product Manager at Upsite Technologies. “The KoldLok Mini provides a low-cost-of-entry way to optimize airflow immediately and save money in the long term.”

Proof is evident for many satisfied data center managers worldwide. In a financial impact study conducted in a 10,000 ft² computer room with 400 KoldLok Grommets installed, simple OpEx payback occurred within the first two months, there were annual OpEx energy savings of \$50,896, and one-time cooling unit CapEx savings of \$90,000.

“After extensive research in the field, we discovered that our data center customers require more varied and flexible solutions to treat multiple cable opening sizes,” says Peter Crook, Vice President of Business Development. “We’re excited to help data centers lower data center energy costs and execute their energy efficiency initiatives with the KoldLok Mini.”

Upsite has established itself as the organization that produced the original research, along with the Uptime Institute, about the true causes of lost and wasted energy use. Upsite was the first to offer the engineered solution to solve this challenge and continues to research cost efficiencies in the data center. Over the years, Upsite’s studies have revealed that the reliability, availability, and economic well-being of the data center are at risk, and that the industry will continue to suffer without well-engineered solutions. Many, if not all, of the products now offered in the marketplace are based on the collaborative research that originated with Upsite and the Uptime Institute.

As the most effective sealing solution chosen by many Fortune 100 companies

worldwide, the KoldLok Raised Floor Grommets, now including the KoldLok Mini, offers a versatile suite of proven products:

- KoldLok Mini Raised Floor Grommets seal smaller openings in new data centers that have multiple cable opening sizes, and offer a handy way to split power and data cabling.
- KoldLok Surface Mount Raised Floor Grommets can be used for retrofit projects to seal a variety of existing raised-floor tile cutouts and allow the flexibility of removing tiles without capturing cables.

With its engineered design and proven history in reducing infrastructure costs, the KoldLok family of products has an immediate impact on cooling capacity optimization; and in the long-term, lowers TCO and reduces carbon footprints. Large, successful companies cannot tolerate unreliability, downtime, or the high energy costs associated with inferior solutions in their data centers. With KoldLok products, leading companies get proven raised-floor sealing solutions requiring no maintenance and continue to save costs.



How does the expanded KoldLok family of sealing solutions achieve this? All KoldLok products offer a virtually perfect seal, which can significantly increase existing cooling unit capacity by enabling more effective delivery of cooled air to IT equipment air intakes. The installation of KoldLok products helps reduce the need to purchase additional cooling units. Their

Data Center Needs

Vanderbilt University Medical Center’s (VUMC) Information Management division supports approximately 15,000 employees in two data centers of leased space; one of which is 12,000 ft² and the other is 3,000 ft². The computer rooms are at the heart of all systems critical to patient care, including patient information systems, Life Flight, electronic bed boards, and donor and transplant databases.

At 21 years old, the Medical Center’s primary data center needed an overhaul to maintain efficiency as more equipment was added. Hotspots were increasingly becoming a problem. VUMC wanted to minimize and delay its purchase of additional cooling units.

In response, data center managers initiated a variety of remediation efforts, including moving to a Cold and Hot Aisle layout. VUMC also needed to direct more cold air to computer equipment. Called “bypass airflow”, this conditioned air was escaping through cable openings, holes under cabinets, and misplaced perforated tiles.

Solution

VUMC’s data center had tried a rubber product to seal leaks, but they often fell out. The Medical Center’s smaller, leased data center used a round, disktype product, which frequently broke. Instead, the data center chose KoldLok® Grommets from Upsite Technologies, a patented product that seals cable openings and remains securely in place.

“We chose KoldLok over other offerings in the market, not only because it solved a problem for us but because of the product’s durability,” said Dave Ellis, Assistant Director, Information Management for Facilities Management and Engineering.

As the data center reconfigured its infrastructure, it added the KoldLok Grommets. To date, the Medical Center has retrofitted about 75 percent of its main data center with the new Grommets.

Overall, data center managers measured a 19 percent increase in cubic feet per minute (CFM) of airflow. As a result, VUMC immediately saw about a five-degree temperature drop in rows where it added KoldLok. Over time, those improvements will help preserve the life span and reliability of the Medical Center’s equipment.

Installing KoldLok also resulted in an unintended, but welcome, side effect. Previously, crews working in the area often jostled cables as they adjusted equipment, leaving holes open for cool air to escape and frustrating data center managers. The KoldLok Grommets remain securely in place as crews work on cables, and this has improved relations between groups.

VUMC moved ahead with a planned upgrade of its cooling system, however, delayed that investment by a full year because of cooling efficiency realized with KoldLok Grommets and a new hot Cold and Hot Aisle configuration. Instead, the Medical Center was able to use those funds for other needs associated with its growing facilities.

“We have standardized with KoldLok as we have reconfigured our data center,” Ellis said. “It has allowed us to better cool the environment and postpone for a year a major overhaul of our cooling system. The 19 percent increase in airflow and five-degree temperature drop we achieved really made a difference.”



Before: Real air-intake temperatures in an actual data center before installing KoldLok products

Before KoldLok products were installed, a foam product was used to plug holes and fans were used to cool the computer room. Temperatures reached 94°F, 13+ degrees higher than is recommended by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE).



After: Real air-intake temperatures in an actual data center after installing KoldLok products

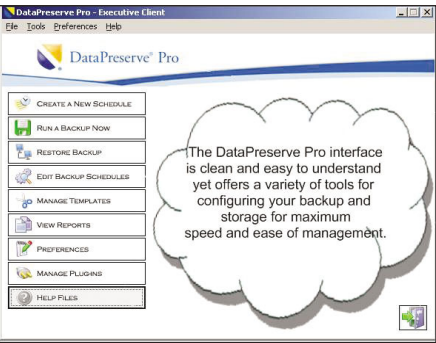
After KoldLok products were installed, virtually all temperatures dropped below the recommended 80.6°F, resulting in increased cooling optimization and greater overall data center efficiency.

- KoldLok Extended Raised Floor Grommets seal a variety of existing larger openings along the wall, with the added flexibility of modification for unique openings.
- KoldLok Integral Raised Floor Grommets seal cable openings in new raised-floor systems prior to the installation of communication or power cabling.

effectiveness, durability, low maintenance, and adaptability to a wide variety of cable opening configurations have established the added value of the KoldLok sealing solutions in the industry, especially for reducing infrastructure overhead and cutting cooling costs. After witnessing the results of the KoldLok product seal, it’s clear that it’s about much more than just plugging cable openings. [P]

Backup & Store In A Private Cloud

DataPreserve Pro



by Kris Glaser

DATAPRESERVE PRO offers small and medium-sized enterprises a simple way to reliably and inexpensively back up and protect data stored in multiple locations. Designed for MSPs (managed service providers), DataPreserve Pro enables companies to store data in “private clouds.” “Customers of DataPreserve know exactly in which high-availability data center their data is stored,” says Mike Garland, DataPreserve’s director of marketing. Garland said that DataPreserve Pro offers “peace of mind and the ability to quickly restore large data sizes via a seed drive instead of waiting for the data to restore over the Internet.” DataPreserve Pro utilizes Robobak software to help users protect Microsoft Exchange and SQL Server databases. The Robobak software offers agent less backup and has the ability to be

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customized and branded. It utilizes deduplication technology, making the backup and restore process faster and more thorough. And users can more quickly upload large amounts of data, a task that would take much longer over the Internet. Pricing for DataPreserve Pro is based on a flexible month-by-month subscription determined by the storage level needed by an individual company. Garland explains that the pricing model is based on the amount of compressed and deduplication data stored and the model makes DataPreserve Pro very competitive for companies with five to 50 computers. Storing 10GB of compressed data starts at \$37.50 per month. DataPreserve differs from other products in its class by offering faster backup of Exchange files and other database files. It features easy Web-based management, with the ability to customize the software. ■



Better, Easier To Use & More Secure

TRENDnet Web Smart Switch Portfolio



by Andrew Leibman

IF IN NEED OF A viable alternative to fully managed switches, SMEs need to look no further than TRENDnet’s newly updated Web Smart Switch portfolio. TRENDnet just announced a new firmware upgrade for its complete line of Web Smart Switches, which brings SNMP, STP, and IEEE 802.1X port-based network access control to each of the five switches. According to Steve Kuo, senior technology manager for TRENDnet, “Partner feedback indicates that 802.1X port-based network access control is the most popular; whether you’re a network administrator for a small or large enterprise, network security is usually at the top of the list, and IEEE 802.1X/Radius support is a key ingredient in most security implementations.” At a fraction of the cost and complexity of fully managed switches, TRENDnet’s Web Smart platform provides an intuitive Web-based management interface that lets users exercise greater control via

802.11Q VLAN, QoS, Load Balancing, Broadcast Storm Control, and Trunking capabilities. Other features include Asymmetric VLAN, IGMP (Internet Group Management Protocol) snooping, and Mirroring. The new firmware-enabled features add significantly to the Web Smart Switch feature set. For instance, switch-based SNMP support lets users integrate third-party network management and monitoring products to the network environment. Users can also create a zero-downtime network architecture with the help of STP technology. And with the addition of port-based IEEE 802.1X technology, users can adopt enterprise-based network security, as well. The new features are available in all new 16- to 48-port Web Smart Switches, and existing customers can download the firmware update from TRENDnet’s Web site to update their equipment. ■



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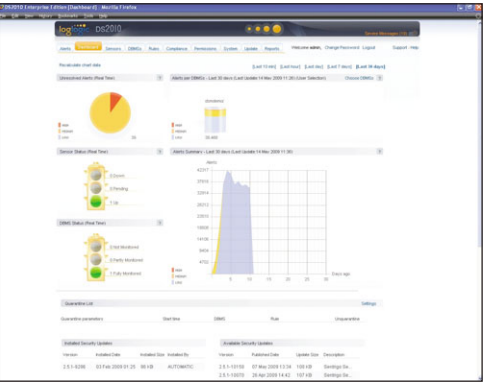
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Security Without Penalty

LogLogic Database Security Manager



by Marty Sems

LOGLOGIC’S customers made the argument that database security and log management are interrelated, and so an application that performs either function really should do both. And the company listened. “Powered by the industry’s leading open log management platform, LogLogic’s business applications correlate user activities and event data in real time for a unique integrated approach to security event management, database security management, and compliance management with industry and government regulations,” says spokesperson Kim Terca. The LogLogic Database Security Manager combines logging, database security, and broader transaction monitoring in a hardware appliance. While it can detect

suspicious database activity of any user regardless of privilege level, protocol, or program language, it can also include information about previous and subsequent actions by the user to help put them into context. It links user activity to other related transactions that might otherwise have gone unnoticed. Of course, the DSM’s security is more extensive than that. It detects, quarantines, and stops illicit access to the database according to highly configurable policies. It’s also a sturdy bulwark against known or unknown exploits that can facilitate SQL injection attacks. The DSM was engineered to provide stellar protection with minimal effect on database performance. It performs its blocking, logging, and other services in real time without bogging down the system or hurting the bottom line. The DSM can integrate with other LogLogic products, such as the company’s security event management systems and its Open Log Management platform. Its starting price includes the DSM appliance and necessary sensors. ■



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Virtual Appliances Enable Software- As-A-Service Deployments

Astaro Web Gateway & Astaro Mail Gateway



by Joanna Safford

BUDGET-CONSCIOUS SMEs interested in cutting costs associated with virtual deployments should look to Astaro for its commitment to saving resources and reducing administrative costs. Astaro’s virtual appliances for multiple machines, Astaro Web Gateway and Astaro Mail Gateway, offer high availability and simple deployment in complex environments, facilitating a green network environment for its customers. Astaro Web Gateway boasts URL filtering to sanitize Web environments and enhance Web traffic performance. Malware and spyware detection protects the network to increase overall productivity. In order to

prioritize business applications, the Bandwidth Management feature permits granular bandwidth limits for particular network applications, such as IM/P2P. Astaro Mail Gateway also integrates anti-spam filtering, antivirus scanning, and email encryption (compliant with government regulations). Astaro partners can easily deploy Web Gateway and Mail Gateway on installed hardware and launch a virtual machine clone for each user, so managing the solution doesn’t become burdensome. “We are able to get our Astaro Web Gateway and Astaro Mail Gateway customers up and running in minutes using the SaaS deployment method,” says John Boudreau, vice president of Micros Northeast. “As organizations continue to look for ways to reduce costs, being able to offer a SaaS deployment of an award-winning security product is a huge competitive advantage.” ■



Manage, Measure & Monitor Your IT Infrastructure

up.time 5 IT Systems Management Software



by Kris Glaser

EFFICIENTLY MANAGING IT infrastructure can be a challenge. up.time 5, by uptime software, helps SMBs and enterprises manage, measure, and monitor their entire infrastructure—both physical and virtual. “Many companies struggle with heterogeneous infrastructures and need a ‘tool soup’ of multiple solutions to monitor their IT environment, including platforms, critical applications, databases, Web services, network devices, and system-level services. This can be costly and time-consuming,”

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says Nick Johnson, up.time’s director of marketing. “up.time provides a value-based solution that can manage, measure, and monitor with broad and deep functionality across multiple platforms, environments, applications, domains, [and] locations and across multiple data centers through a single, intuitive dashboard,” Johnson says.

up.time 5 includes VMware monitoring and management, making it easy to identify VM issues, driving up VM Density to maximize hardware and integrating with vCenter Orchestrator to enable automated incident response and avoidance.

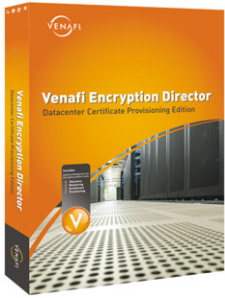
up.time sends alerts and helps administrators go from dashboard to the root cause in just a few clicks. “up.time is designed to provide all the performance and availability monitoring and reporting needs of the SMB and enterprise, from alerts and fast root-cause analysis to automated incidence avoidance and global service-level management and reporting,” Johnson says.



Encryption Management For The Enterprise

Venafi Encryption Director

by Nathan Lake



HAVING TROUBLE managing your enterprise’s encryption assets? Venafi’s Encryption Director centralizes and automates the management of encryption assets—even across diverse operating environments, applications, and encryption systems. Venafi’s latest V.1 release improves system uptime, operational efficiency, data security, and regulatory compliance.

Regulations and the adoption of industry best practices have resulted in encryption throughout the infrastructure. Unfortunately, the management systems exist in silos—if they exist at all. According to Paul Turner, vice president of product and customer solutions for Venafi, “This is especially true when dealing with digital certificates from a variety of certificate authorities and deployed across disparate systems and applications. If you don’t stay on top of these things, an unexpected expiration could cause a system failure.”

Director is available in three editions: Monitoring, Enrollment, and Provisioning. All allow for high-performance and network-based discovery of encryption

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technologies to inventory the deployed keys and certificates at regular, schedulable intervals. “The Venafi platform is architected specifically to facilitate the management of a diverse collection of encryption

methods,” Turner says.

Encryption Director monitors and validates encryption assets in real time. It automates manual tasks to reduce administrative workloads and lower the cost to manage encryption assets. Encryption Director allows policies to be set as Locked, Suggested, or Open. The hierarchical policy inheritance model allows administrators to manage individual systems or use higher-level departmental, site-wide, or global policies to manage larger functional system groups. Whenever predefined policies are modified or violated, the appropriate IT staff can be notified.



ScaleMP vSMP Foundation 2.0

ScaleMP Lets You Construct One Virtual SMP From Multiple Off-The-Shelf x86 Servers



by Blaine Flamig

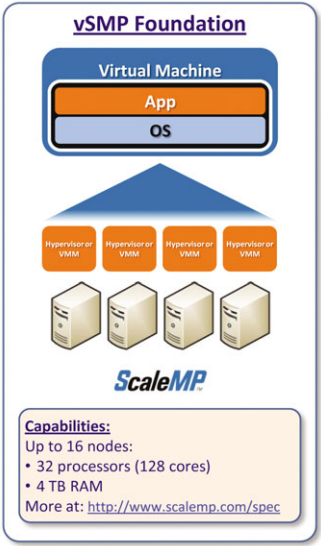
AGGREGATE. Scale. Simplify. Save. That’s the concept behind ScaleMP’s patent-pending vSMP Foundation software, which aggregates multiple x86 servers into one high-performance computing virtual SMP (symmetrical multiprocessor) system.

With the new vSMP Foundation 2.0, ScaleMP added support for the new Intel Nehalem processors and Emulex LightPulse Fibre Channel HBAs, enhanced partitioning abilities, extended remote-management capabilities, and improved profiling abilities across the entire system.

Unlike a traditional server-virtualization approach in which one physical server appears to operate as multiple logical servers, vSMP Foundation combines multiple off-the-shelf x86 system boards and chipsets into one larger, industry-standard SMP system. Using this approach, vSMP Foundation exceeds a traditional SMP’s performance at far less cost while simplifying the implementation of clusters, in terms of installation and on-going management costs.

vSMP Foundation 2.0’s support for Intel Nehalem CPUs lets users aggregate up to 16 x86 Nehalem systems into one shared system supporting up to 32 processors (128 cores) and 4TB RAM.

vSMP Foundation 2.0’s new partitioning capabilities let users partition an aggregated virtual system into eight smaller, concurrent partitions, with each able to run its own OS. Emulex LightPulse support provides additional SAN-based data center connectivity options. Support for redundant InfiniBand switches in active-active configurations allows for automatic failover on link errors or switch failures, all while maintaining load balancing between redundant switches for better overall performance.



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CASE STUDY

Keep Your Cool

MovinCool Spot Cooling Products Help Where Other Solutions May Not Work

by Carmi Levy

TEMPERATURE MANAGEMENT in a data center of any size is critical to preserve organizational investments in IT infrastructure. Equipment aside, it also helps avoid sudden unscheduled downtime that can easily cripple organizations of any size.

It's a situation Ken Morello has seen time and again, including recently when a retail customer of his called in late on a Friday with an emergency. Morello, director of sales and service for Topp Portable Air (www.etopp.com), says the store's primary air conditioning system had gone down.

"Like a typical store, there's lots of heat being generated from systems, phones, lights, and people," he says. "We needed to get to them by close of business to get temperature control in place so they could maintain operations through the weekend."

Morello says Topp Portable Air, a national leader in providing temporary cooling, dehumidification, and heating solutions, has evolved around the need to provide immediate response to companies—like this store—that find themselves dealing with HVAC-related crises.

"In this particular case, we brought in temporary cooling units and ran them

through the weekend," he says. "By the time we removed the units from the store on Monday, they had repaired their main cooling system. If we hadn't been able to quickly respond, they would have been forced to shut down and would have lost retail sales for the entire weekend."

The Right Vendor

Topp Portable Air works closely with MovinCool (800/264-9573; www.movincool.com), a manufacturer of portable commercial air conditioners, to deliver best-in-class cooling capability to organizations whose main air conditioning infrastructure



has failed; is out of service because of planned maintenance; or needs temporary assistance during renovations, periods of high growth, or even heat waves. Topp, founded in 1991, has been a national distributor of MovinCool for 14 years, something Morello describes as a smart, strategic business move.

"MovinCool is known as the Mercedes-Benz of the portable air conditioning industry," he says. "Their quality is

unparalleled. All their products are UL listed, which means they're very safe for the average customer to use. They also offer the most complete warranty in the industry, which is very important to a lot of customers."

Admittedly, this capability comes with a cost. But Morello says it's one that ultimately adds value to the business.

"They're not the cheapest out there," he says. "And neither are we. We're competitive, but we charge for the services we provide and we do everything we say we would. Value matters far more than price, and when you measure the cost of the alternatives, our solutions are like a form of insurance for your business."

Immediacy Matters

Part of that insurance starts with responsiveness, because even the best cooling equipment on the market is useless unless it can be installed where and when it's needed.

"Response time is key," says Morello. "When you drill down into the data center, typically you'll be dealing with a room with a lot of expensive, important equipment."

"Where we excel is in our response time," he adds. "It's more than just taking that phone call. Our national geographic footprint allows us to be at the customer's facility the same day, and usually within hours. This has a lot of value to them,

because when things get too hot in this environment, equipment starts to shut down, crash, or worse."

Topp also excels in an organizational structure that simplifies things for customers. All clients are assigned an account manager who serves as a single point of contact for pricing, securing purchase orders, overseeing shipments and installations, and managing accounts payable.

"What's really nice about that is the customer makes just one phone call, and that one person takes care of everything," says Morello, adding vendors such as MovinCool prefer to work with innovative, customer service-driven companies.

Keep It Simple

To reduce exposure to cooling system failures and give themselves additional flexibility for managing operations through data center renovations and upgrades, some companies purchase devices such as MovinCool's portable air conditioning units and store them onsite.

"If they have a crisis, they simply pull them out," Morello says. "The MovinCool equipment is essentially an air conditioning unit on casters. It fits through a standard doorway, and one untrained person can roll it in and plug it into a standard 115V outlet."

After connecting some flexible ducting to the top and routing it out of the room, Morello says the average customer can singlehandedly avoid a temperature crisis in less than five minutes. It's a solution that Eddie Stevenson, CIS marketing supervisor for Denso Sales California (www.denso-corp-na-dsca.com) says doesn't have to be strictly temporary.

"These units can be used permanently and can be very cost-effective, too," says

CASE STUDY

Get A Clear Data Center Picture

Onset Monitors Track Usage, Spot Inefficiencies

by Sue Hildreth

YOU CAN'T EFFECTIVELY manage the energy usage of your data center or office unless you can tell how much you're using and how. Energy monitors can help. By monitoring your facility's energy consumption at different times of the day and in different parts of the building or data center, you can begin to see where the wasted energy is going, start to cut back usage, and automate more of the controls, including reducing cooling in the data center during off hours when less heat is generated.

That's the value proposition behind environmental- and energy-monitoring products currently on the market, many of which also provide weather monitoring, data logging and transmission, and reporting features. One such product is Onset Computer's HOBO U30 Remote Monitoring System (www.onsetcomp.com). The U30 keeps track of such factors as temperature, humidity, kilowatts used, DC current, AC current, and voltages. A key feature of the product is that the data it collects can be transmitted to Onset's HOBOLink Web-

based reporting tool so a customer can check devices remotely and view the data they collect.

Tracking Energy Reduction

Energy-monitoring devices such as Onset's are quickly finding their way into all sorts of facilities for tasks such as reducing overall consumption, testing the effectiveness of a specific energy-efficiency project, or finding out what parts of the building or times of the day generate the greatest demand.

MCD Inc., a Wisconsin-based specialty print-finishing company (www.mcd.net), is using Onset's U30 monitors to track the printing plant's electricity use, with the goal of better managing peak energy demand. MCD and its energy consultant, Informing Ecological Design, are looking at ways to reduce MCD's peak power draw to save money in both energy costs and punitive charges that utilities often levy on peak demand usage.

Another energy consultant, Leo Cutone, president and founder of Cutone & Company (www.cutone.org), relies heavily on the Onset U30 power monitors to track energy consumption for his clients, which

are mostly office and residential buildings, universities, and hospitals.

The majority of his customers are organizations that have signed up to participate in the New York State Energy Research and Development Authority Demand Response Program, which rewards businesses that cut back on electrical consumption during times of peak demand to prevent brownouts and blackouts. Some also participate in smaller energy-reduction programs, which typically provide grant money and bonuses for implementing a specific energy-efficiency practice, such as better insulation or high-



efficiency air conditioners. In either scenario, Cutone's job is to collect the data as proof that the customer has in fact reduced consumption and qualifies for the incentive.

For many of Cutone's clients, these monetary incentives are considered important revenue streams, so the reliability and accessibility of the monitoring devices takes on extra importance.

"Some of our customers can get back as much as \$200,000 a month, so it's like their cash register, and they expect that revenue," Cutone says. "If the meter were to

go down for some reason, they'd risk losing that money."

Web-Based Collection & Reporting

Cutone likes the U30 monitoring products because they are supported by Onset's Web-based data collection and reporting tool, which takes the data from the remote monitors and saves it for him to access or download later. That lets him remotely check on the monitors and run reports when he needs them. The U30 also comes in versions that support different communications channels, including Ethernet, cellular, and Wi-Fi. Cutone says he was attracted to Onset partially because of its support for cellular service, which the product he had been using did not support.

Before moving to the U30 cellular model, Cutone was using a product that supported only a network or landline connection. However, using a customer's intranet didn't work well as the network administrators often routinely killed the process, assuming it was a rogue program or virus. His other option, a regular landline connection, was prone to being physically disconnected by an employee simply pulling out the jack or being virtually yanked by the phone company.

"When I ran it through the customer's intranet, the IT department would see it on their network, not know what it was, and disconnect it. It happened all the time," he explains. "Or [the phone company] would disconnect it because it looked like some weird device on their network, too. Then I would lose money and so would the client."

Cutone has had no problems with Onset's cellular version. While cell connections often aren't ideal for data transfers, the Onset monitor sends only small packets of text, so a slow connection isn't usually a problem.

Stevenson, whose firm manufactures MovinCool. Newer, energy-dense hardware often pushes existing data center cooling infrastructure beyond the breaking point. When that happens, updating legacy HVAC infrastructure may be impractical and expensive.

“It can cost hundreds of thousands of dollars to retrofit the entire cooling system in an existing facility,” Stevenson says. “Instead, you can purchase a new portable unit for a fraction of that amount to supplement the cooling system and allow it to handle the additional heat that’s now being generated. Portable units are beneficial not only when a CRAC unit goes down but also when existing infrastructure can’t keep up with demand.”

Cooling Shops Of Any Size

Even when the corporate data center is little more than a converted closet, cooling matters. A decided lack of floor space, however, means caster-based units won’t fit the bill.

MovinCool’s ceiling-mounted unit, known as the CM12, installs above a drop ceiling and delivers 12,000 BTUs of cooling. Additional features, including a remote thermostat, reduce administrative overhead in companies that may not necessarily have large, sophisticated IT departments.

Working with a range of customers reinforces the value of proactive education.

“The biggest challenge with our product is that some people look at it as a niche. It really isn’t, but even today, a lot of people don’t know that portable air conditioning exists,” says Morello. “And if they’ve heard about it, they may not know how it works.

“MovinCool is doing a fantastic job of educating people by conducting Webinars

on portable cooling and data room crises,” adds Morello. A strong partnership with the vendor allows Topp to continue investing in its own employees to deliver even greater value-add to customers.

When Topp Portable Air teams meet customers and prospects, the goal isn’t a hard sell. “What we really try to be is be a resource, to educate the customer and get them thinking about how they can use what we have to offer when the time is right,” says Morello.

“Then, when an end user has a need, they can call someone who has the technical expertise to address their need and take care of their problem. Maybe today they don’t have a need. But a year or two from now, they can draw on these conversations and have a resource to go to.”

Ultimately, the end result for most cooling customers is similar. “All companies have the same challenge,” says Morello. “At the end of the day, everyone wants to save money while protecting their investment in their equipment.”

MovinCool Portable Air Conditioners

A complete line of portable and ceiling-mounted air conditioners and spot coolers designed for data centers of all sizes.

“MovinCool is known as the Mercedes-Benz of the portable air conditioning industry,” says Ken Morello, director of sales and service for Topp Portable Air.

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Fine-Tuning A Green Machine

Onset’s energy loggers can also be used to monitor entire facilities. That’s the case with Mind, Body & Spirits restaurant in Rochester, Mich. The restaurant, which opened last year, was built with all of the latest in environmentally efficient technologies, including solar power collectors, an energy-recovery ventilation system, geothermal heating and cooling, and the use of outdoor air to chill the food coolers during the winter. Timers are set to turn the heating and AC on and off at certain times of the day, adjust the temperature in the coolers, and keep the onsite greenhouse from getting too cold.

Mind, Body & Spirits uses several Onset environmental and power-consumption monitors to efficiently manage all of these energy sources and automated switches. Knowing when and where energy is needed is key to keeping things running smoothly, says owner Mike Plesz.

“It’s like timing a car engine,” Plesz says. “The data logging [from the Onset U30] helps by showing us the spikes and valleys in usage and temperature. It allows us to do forecasting throughout the year.”

There are about 15 individual monitors around the restaurant, including a weather monitor and a CO² monitor in addition to the energy monitors. All of them send data to the Onset HOBOLink Web site, where Plesz can view it from a Web browser. The data gives him an understanding of what parts of the restaurant need more energy than others; where lighting or heating can be cut back to save money; and even whether something odd has occurred during the night, such as the cleaning staff forgetting to turn off the lights.

One of Plesz’s first discoveries was that the cleaners had the habit of turning on all

of the lights in the restaurant while cleaning. That showed up as a spike in the data, and Plesz has since asked the cleaners to be more conservative with the lighting. “We’re educating them about conserving energy,” he says.

Plesz’s expectation is that the data he collects will be useful not only now in saving on current energy costs, but down the road when he builds more restaurants or does consulting for others.

“We have to be able to see everything that’s going on,” he says. “It provides information for the investments we’ll be making in the future.”

Onset Computer HOBO U30 Remote Monitoring Systems

A remote data logging and monitoring device with built-in communications, including cellular, Ethernet, Wi-Fi, or USB, that provide real-time access to environmental and energy data. The monitors can transmit data to the HOBOLink Web-enabled software hosted by Onset. The U30 is also available as a stand-alone unit that logs data and lets users collect data directly from the unit.

“It’s like timing a car engine,” says Mike Plesz, owner of Mind, Body & Spirits. “The data logging [from the Onset U30] helps by showing us the spikes and valleys in usage and temperature. It allows us to do forecasting throughout the year.”

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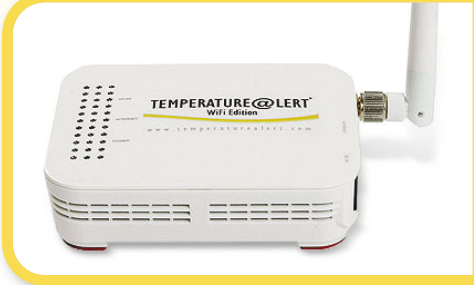
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FEATURE PACKAGE

Top Things You Should Know

What are the key things every data center/IT manager should know when it comes to today's "hot" data center topics of VoIP, buying used equipment, hardware and software lifecycles, and more?

VoIP Crash Course | 24

■ In a market that changes constantly as manufacturers refine their offerings to suit increasingly demanding communications needs, a crash course in VoIP is a daunting proposition. However, having a basic grasp of current trends and technologies in the area can help.

Buying Used Equipment: A Primer | 25

■ As cool as it may be to have the latest-generation computing architectures running in your enterprise's systems, many IT applications don't need the speed.

Lifecycle Lowdown | 26

■ In the current economic climate, many companies are choosing to extend life cycles in order to buy more time on their current investments. Unfortunately, in the long term, this plan of inaction can be a more expensive option.

Email Security 101 | 27

■ Email's spectacular success has generated a number of security risks—think spam, malware, and phishing attacks—that enterprises must work 24/7 to counteract. Data center administrators and employees should, at the very least, have an understanding about email security and the tools and best practices that can keep email systems free of threats.

VoIP Crash Course

Obtain A Better VoIP View With This Comprehensive Look At The Industry's Top Trends

by Christian Perry

LET THE BUTTERFLIES BEGIN. Your superior just tasked you with taking the reins on a new VoIP implementation, but you haven't brushed up on the technology in years. In a market that changes constantly as manufacturers refine their offerings to suit increasingly demanding communications needs, a crash course in VoIP is a daunting proposition. However, having a basic grasp of current trends and technologies in the area can help quell fears and smooth the transition to an IP-based communication infrastructure.

Inside Quality Of Service

Because VoIP implementations are subject to a wide range of issues that can degrade call quality, such as latency, jitter, and packet loss, quality of service is a major concern for organizations looking to introduce the technology into their infrastructures. Dan Litman, director of sales for ATCOM (www.atcombts.com), warns that there is plenty of confusion between private QoS-based VoIP applications and best effort-based VoIP applications, in which voice calls travel over the Internet. QoS can be more tightly regulated in private VoIP implementations such as IP to the desktop and seamless interoffice communications, where voice calls can be prioritized over a private network. Best effort services, on the other hand, prioritize voice calls as they leave the customer's premises, making it more difficult to avoid latency across the Internet.

Key Terms & Technologies

- Quality of service:** QoS requirements can vary widely by implementation, but in general, organizations must seek to prevent latency, jitter, packet loss, and similar issues in their VoIP infrastructures.
- Communications as a service:** By utilizing CaaS, customers can take advantage of outsourced offerings to handle diverse communications needs, from voice to instant messaging to videoconferencing.
- Integrated services:** Today, traditional voice networks are merging with data networks to provide better communications flexibility at a cost that's more affordable than buying separate networks.
- SIP trunking:** This service can be connected to an internal PSTN system to allow VoIP communication outside of the organization. Data and voice connections exist on one line.

Key Points

- Because there are many VoIP flavors, it pays to thoroughly research your internal and external needs (as well as your customers' needs) before deciding on VoIP products and technologies.
- Like other technologies, VoIP now exists in the cloud, where service providers deliver flexible, mobile services that are backed by global, carrier-grade infrastructures.
- A VoIP implementation doesn't mean you must ditch your infrastructure altogether, as integrated services combine the best aspects of older and newer technologies in a cost-effective package.

"Don't rush into a decision," Litman advises. "Take time to educate yourself on the different flavors of VoIP. Determine what aspects of communications are most important to your business and make decisions from there. How do you communicate with internal customers? How do you communicate with external customers? Where do your employees most often work from during the day? Do they travel or work from home? Do you have repeat customers who call in to customer service or sales? Once you have answered these questions, you will know whether best effort- or quality of service-based, private VoIP networking is right for your business. Many VoIP providers do lunch-and-learns to educate their customers and prospects on the different types of VoIP they offer. Sit in on a session to fully understand all of these different offerings."

Real Recovery

One of the more prominent trends circulating in the VoIP market today is recovery, as organizations are finding that VoIP technologies can supply options for keeping communications intact during times of emergency. Whereas data centers using traditional voice technologies can lose voice service with no recovery options, some VoIP services allow calls to be routed to other devices and other open Internet connections. "This feature is gaining popularity and rising to the top of the priority list because

it ensures business continuity," says Bob Paulsen, CEO of Unity Business Networks (www.unitybn.com). "If power is out, or if there is a snow storm, or if the building is on fire, you send [employees] home as if they're still working, and the outside world continues ordering product and services, unaware of the difficulties."

VoIP Heads To The Cloud

With most elements of today's IT architecture finding a comfortable home in the cloud, it's no surprise to find IP-based communication there, too. Although the technology remains in early stages, organizations are discovering loads of value in creating "virtual PBXes" through services such as Amazon's EC2 and others. "What's exciting is that communications delivered over IP pipes brings with it an entire new world of innovation, both in the services themselves and in how they are deployed," explains Charles Studt, vice president of product management and development at IntelPeer (www.intelepeer.com). "The emergence of hosted services and infrastructure—essentially communications

"Cloud-based hosted services provide these incumbent carriers with a way to respond to the free or almost-free consumer-grade VoIP services that began with Skype a few years ago. These consumer services have shaken the foundations of the telecommunications industry with the force of an exploding meteor. These services—which now include Google Voice, Jajah, and Yahoo! Voice—present a huge threat to incumbent carriers, who are losing subscribers, losing voice minutes, and seeing their margins reduced. The concept of making international calls for free or for a fraction of normal exchange rates has tremendous appeal for any business seeking to cut costs," Studt says.

However, the call quality and reliability of these services aren't always up to snuff with stringent data center demands. Cloud-based VoIP services, on the other hand, can deliver service backed by global carrier-grade infrastructures and provide the quality and reliability required for critical voice services.

Technologies On The Rise

In the VoIP world, technologies and trends come and go as adopters spend more time with the features and decide what works and what doesn't. Currently, integrated services are enjoying plenty of popularity, due primarily to their ability to drive down costs. According to Paul Marra, vice president of business development at MegaPath (www.megapath.com), a traditional voice network might consist of a couple of voice T1 lines at headquarters and analog POTS lines at each of the remote sites, along with a data network that has access to connect all of the remote locations back to the headquarters. Today, these networks can be combined, where the voice becomes an application that runs on the data network—without sacrificing quality. Marra adds that SIP (Session Initiation Protocol) trunking is another trend that's seen huge growth over the past years, and most IP PBX manufacturers support and embrace the technology. "Since the number of concurrent calls is only limited by the size of the data connection, business can easily grow without having to increase the number of physical interfaces to their PBX. Also, since SIP trunking is generally offered in single units, there is better capacity management," Marra says. Finally, open-source PBXes are becoming more common, Marra says. Such systems are free to download, boast support communities that have thousands of people, and run on everything from Linux to Mac OS, in turn allowing IT organizations to deploy them on familiar platforms. ■



on-demand, or what we like to call communications as a service (CaaS) . . . means these services can be delivered from the cloud." According to Studt, these services can be accessed anywhere and eliminate the costly deployment and integration of premise-based equipment. Further, small and midsize enterprises, which often find themselves strapped for time and resources, can boost productivity by blending their communications with other applications and data.

Buying Used Equipment: A Primer

What You Need To Know To Navigate The Used-Equipment Market

by William Van Winkle

AS COOL AS IT MAY BE to have the latest-generation computing architectures running in your enterprise's systems, many IT

Key Points

- There are three key supplier levels within the previously owned hardware market: OEM direct sales, midlevel resellers, and relatively unknown dealers from sources such as eBay.
- Know what you're buying. Some IT items will have been victim to recalls or common reports of component failure, so know about the specific model number's history and also know what the vendor has done to prepare the hardware for resale.
- Buy from reputable refurbishers. Consult formal industry groups and programs and check out *Processor's* advertisements and online Data Center Products For Sale database for suggestions.

applications don't need the speed. Some systems and components just need to work well enough with modern applications to not hamper users' productivity; for example, older routers may lack some of the newer management amenities, but they can still carry the same traffic at the same speeds. That said, it's advisable to buy previously owned gear sooner rather than later.

"You're starting to see used PC prices climb back up again for Pentium 4s and other entry-level systems before the dual-core units," says Cliffie McKay, director of operations for IT asset lifecycle management company DMD Systems Recovery (877/777-0651; www.dmdsystems.com). "They're starting to go back to about where they were one year ago. A 2.8GHz P4 is going to run you about \$125 or \$130. Eight months ago, when you were seeing all the layoffs, you could get it for about 70 bucks.

Still, used is a growing trend because it's cheaper and people are trying to watch their budget. If computer equipment breaks and you're already at your limit, the budget may mean there's no choice but used."



"If I'm going direct to [an] OEM and buying their previously enjoyed equipment, I'm not going to get quite the discount, but my risks are going to be a lot less as opposed to jumping out on eBay," Stahl says. "There are some dubious and nefarious activities going on out there. If you're in an enterprise with an experienced IT staff used to this market, they might be a little more comfortable going this route. But if buying used is a new strategy being born of current economic conditions, I see a lot of folks starting out with the OEMs."

Vendors such as IBM, Cisco, Sun, and HP all have Web pages dedicated to selling refurbished and previously used equipment. Some of this will be lease returns, some used internally, and some will simply have been shown in VAR demo rooms. This is the top tier of used IT equipment, and as such, it's likely to carry both the highest price and the highest overall quality and support.

The question, then, is how to find previously owned IT hardware and not get burned in the process.

Three Levels Of Used Equipment

When it comes to buying used IT equipment, there are three basic levels in the market. The lowest is equipment purchased as is from a relatively unknown supplier. Online auctions are a common source for such equipment, and such dealers can often provide the lowest price for gear. But as Darin Stahl, lead analyst at Info-Tech Research Group, cautions, discounts and risks go together.

Russ Hill, purchasing director for Data Media Source (800/252-9268; www.data mediasource.com), which specializes in previously owned tape media, believes it's important for resellers to pay attention to equipment quality: "We want the end user to open up a box of tape and have something that looks and performs like new." Companies such as Data Media Source represent the middle tier of the used market, wherein specialist resellers step in, carefully screen and prepare product for resale, and then back it with enterprise-class

Go to Page 26

Some Machines Defy Obsolescence...



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Lifecycle Lowdown

Knowledge Is Power When It Comes To Hardware & Software Life Cycles

by Sandra Kay Miller

WHEN IT COMES TO hardware and software life cycles, there are usually two camps: one group that plans for regular technology refresh rates within its organizations and one group that only replaces equipment when it breaks or when software is no longer functional or supported. In the current economic climate, many companies are choosing to extend life cycles in order to buy more time on their current investments. Unfortunately, in the long term, this plan of inaction can be a more expensive option. Read on to learn more about hardware and software life cycles and what they mean for small to midsized enterprises.

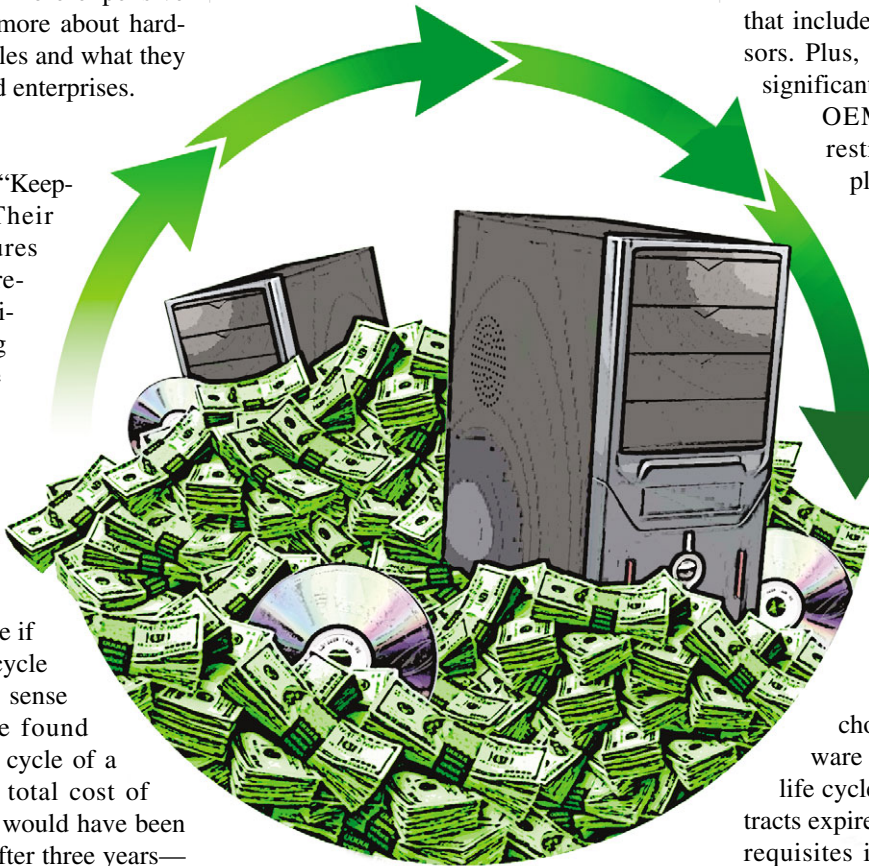
Past Their Prime

In a recent report titled “Keeping Notebooks Past Their Prime: A Study of Failures and Costs,” technology research firm J.Gold Associates found that extending the life cycle of a corporate laptop from three to five years cost organizations as much as \$1,050 per device and as much as \$9,600 in diminished end-user productivity. “Given the current economy, we wanted to see if increasing the useful life cycle of laptops made financial sense for companies. What we found was by stretching the life cycle of a laptop to five years, the total cost of ownership exceeded what would have been spent on new equipment after three years—the standard replacement time,” says Jack Gold, president and principal analyst of J.Gold Associates.

Lifecycle Drivers

Gold’s report also noted that the average cost for repairing a broken notebook with an expired warranty is \$1,525. “That’s more than the cost of a new notebook today,” he says. Warranty expiration has been commonly used as a criterion for lifecycle

determination for hardware, but for mid-sized to larger enterprises, managing a warranty-based life cycle can be overwhelming and unpredictable. Software life cycles have typically been triggered by the release of new versions. However, many organizations that have been around as long as Microsoft have learned that upgrading to the latest version of the Windows operating system immediately does not necessarily offer good return on investment. For instance, many organizations shied away from the initial launch



of Windows XP in 2001, yet it is now the preferred desktop OS compared to the 2006 release of Windows Vista. Instead, software life cycles tend to revolve around support for the version. There are still active Windows 2000 systems that will have Microsoft support until July 2010, and WinXP will last until April 2014. Although software life cycles tend to be much longer than hardware, many organi-

Key Points

- Holding on to outdated technology past its prime can ultimately cost more money than upgrading.
- Coordination between IT and Finance should determine the most effective hardware and software life cycles.
- Hardware and software refreshes are driven by new releases, ending support, consumer trends, and more efficient technology.

zations choose to upgrade both at the same time. OEM software pricing is typically lower, especially when it comes to options such as antivirus and productivity packages that include spreadsheets and word processors. Plus, the preinstallation can provide significant savings in IT labor costs.

OEM pricing for software isn’t restricted to workstations. Server platforms offer a variety of enterprise software packages integrated into their hardware.

The best option for determining hardware and software life cycles is for IT and Finance to work together in order to create a schedule based on company or departmental budgets for capital expenses and amortization schedules. This ensures that technology is upgraded in a timely manner and can continue to support overall business growth.

For those organizations that choose to lease hardware and software instead of purchasing outright, life cycles are inherently built in as contracts expire. However, be aware of specific requisites in the lease that may void the terms (original packaging and documentation, maintenance from certified technicians, physical damage) and force the purchase of unwanted systems at the end of the agreement.

Realistic Approach

A three-year life cycle may be ideal for IT assets, but as more organizations are trying to stretch their budgets, a five-year life cycle is possible through well-planned management.

Although it requires time on behalf of IT personnel, allocating the newest technology to mission-critical areas while redeploying older systems to administrative staff can provide the extra two years of usefulness companies are looking for today. For instance, a three-year-old workstation for a database administrator or developer may be past its prime but will be adequate for an employee who uses only word processing and email programs.

When you do need to purchase new systems, however, remember that cheaper does not always mean better just because cheaper systems might be kinder to your budget up front. Michael Yoh, director of media services at Shippensburg University, explains, “Budgets are tight . . . but purchasing basement bargains might land you with systems that will be outdated more quickly and ultimately will need to be replaced sooner.”

Gold concurs and recommends that organizations purchase only high-quality systems with a history of low failure rates. “Obtaining lower-quality devices will add substantially to the lifecycle cost of the device. Paying a little more up front can offer substantial savings over the lifetime of the device.” ■

Key Terms & Technologies

Amortization: The accounting process for allocating lump sum expenditures over a certain period of time.

Capital expense: Money spent to acquire physical assets, such as hardware.

OEM pricing: Original equipment manufacturer options, such as added software licenses, can deliver significant savings over commercial productivity packages.

Equipment leasing: Paying a company for the use of new equipment for a specific period of time while paying a predetermined fee. At the end of the lease, the equipment can be purchased outright for a reduced price or returned.

TCO: Total cost of ownership of using a computer, which includes hardware, software, upgrades, support, and training.

ROI: Return on investment calculates the financial benefits from money spent on technology. This includes intangible returns that can be harder to quantify.

Buying Used Equipment: A Primer

Continued from Page 25

support. Info-Tech’s Stahl believes this is where most small and medium-sized enterprises will find the most comfortable balance between pricing, quality, and support. Most midtier used equipment sellers, he adds, will also be able to provide documentation showing exactly where a given piece of hardware has been.

Important Considerations For Buying Used

Prior-life documentation can be invaluable to managers looking to get the most for their money. For example, depending on the depth of detail accompanying hardware, one might gain insight into whether a server was run in a heavy-duty virtualization environment. If so, then the odds are higher that the internal components will have been more stressed for more prolonged periods and perhaps under higher temperature conditions, all of which can negatively impact the hardware’s longevity.

Along with product documentation, a used equipment supplier should be more than willing to share its processes in taking hardware from acquisition through resale readiness. For instance, some vendors will buy mass lots of hardware anticipating a 15 to 30% fail rate during screening, which often includes a physical check of the hardware for any damage, plus cosmetic touch-ups for things such as sticky spots from labels, ink spots from markers, and chips and scratches in the paint, as well as an internal examination, which looks for tell-tale signs such as blown capacitors or burn marks on motherboards. Additionally, software stress testing may be performed to make sure hardware performs under load. Without this level of quality control, buyers have little to no true idea of what they’re buying.

“Look for a vendor you can trust and can develop a good relationship with,” says DMD’s McKay. “Look for a certification like being a Microsoft Authorized

Refurbisher [or] a member of the Better Business Bureau. Companies that are ISO-compliant or ISO-certified are big deals. To a lot of people, advertising these things looks like bragging, but those really are ways to know you can trust them.”

Not least of all, look into industry-level programs and organizations that can help steer you toward reputable sources for used equipment. In the desktop space, this might be the Microsoft Authorized Refurbisher program, which carries a set of rules for participating resellers on how they must prepare systems and load them with a valid copy of

Windows XP backed by a Certificate of Authenticity. At a higher level, Info-Tech’s Stahl recommends investigating the United Network Equipment Dealer Association (www.uneda.com), a consortium of secondary market suppliers dedicated to increasing standards in the used equipment market; another such resource is the ASCDI (Association of Service and Computer Dealers International; www.ascdi.com) For an easy place to start finding secondary market suppliers, you can also check Processor’s ads and online Data Center Products For Sale resources. ■

Key Terms & Technologies

Refurbished equipment: In the previously owned IT equipment space, refurbished usually means gear that has been cleaned up, tested, and made ready for resale in “nearly new” condition.

Used equipment: Used IT equipment tends to fall more into the “scratch-and-dent” cat-

egory. Beige cases left in sunlight that have yellowed would apply here, as would niche equipment that can’t be tested by the reseller and therefore must be sold as is.

International Organization for Standardization: There are many standards within the ISO, but a commercial entity

that complies with ISO specs generally adheres to a set of standards that guarantee quality output and accountability.

Microsoft Authorized Refurbisher: A systems reseller that conforms to the guidelines of and participates in Microsoft’s official refurbisher program.

Email Security 101

Important Information About Securing One Of Technology’s Most Ubiquitous Components

by Sixto Ortiz Jr.
• • •

IN THE FAST-PACED world of digital technology, where innovations come and go with lightning speed, email is a technological Methuselah. Email has been around since the dawn of the digital revolution and continues to enjoy ubiquitous adoption by the vast majority of the digital public. In fact, email is now a standard tool of modern business, right next to the fax machine and the telephone.

However, email’s spectacular success has generated a number of security risks—think spam, malware, and phishing attacks—that enterprises must work 24/7 to counteract. Data center administrators and employees should, at the very least, have an understanding about email security and the tools and best practices that can keep email systems free of threats.

Email Threats Abound

The bane of modern email, spam continues to grow despite the best efforts from technologies designed to filter and keep it out of users’ inboxes. According to research done at Barracuda Networks, 95% of incoming SMTP connection attempts are spam, says Stephen Pao, vice president of product management at Barracuda (888/268-4772; www.barracudanetworks.com).

Administrators should be aware of DHAs (directory harvest attacks) designed by spammers to ferret out legitimate email addresses from email servers, says Jason Leung, senior product line manager of SMB security at NETGEAR (www.netgear.com). According to Leung, a DHA script uses a huge list of well-known first and last name combinations to probe an email server. If an attacking computer does not receive a nondelivery notice from the email server, the attacker now knows an email address is legitimate and can be targeted for spam.

Another not-so-great trend within the domain of email security is phishing. Paul Wood, senior MessageLabs Intelligence analyst at Symantec (www.symantec.com), says one in 279 emails is a fraudulent phishing message. And according to Symantec’s June 2009 State of Phishing Report, phishing attacks are beginning to target users of Facebook and Twitter, the two most popular social networking sites.

There are other threats to email security that are not as well-known but may be even more dangerous than “traditional” spam and phishing attacks. For example, according to Barracuda Networks’ Pao, there is an increasing trend in the use of botnets, which consist of extremely distributed networks of infected hosts. In addition, Pao says the rise of zero-hour threats that rapidly spread and morph over the Internet makes it necessary for administrators to consider new types of antivirus engines designed to stop new email-borne threats.

Email Security Best Practices

So, what are some best practices that can help data center administrators truly

secure their email systems? Steve Wallace, director of network operations for data center and colocation provider American Internet Services (www.americanis.net), says implementing email filtering is one of the most critical features of a secure email system.

In addition to antivirus and content filtering, Wallace says administrators should consider other filtering approaches, including graylisting, blacklist subscriptions, and hashcash. Also, adds Wallace, administrators should consider the use of dedicated filtering hardware devices that are located between the Internet and email server, thus providing a layer of protection. The use of third-party email filtering services, which can be highly sophisticated and effective, can also provide administrators with a sound email filtering alternative.

However, according to Tal Golan, founder and CTO of email security vendor



Sendio (www.sendio.com), “Antispam filtering can no longer be considered a reliable tool for protecting your email infrastructure and/or your users from the many threats that use email as their primary insertion vector.” Golan says smart IT professionals have come to realize that it is impossible to determine intent from content. So, says Golan, the next era for email security will be ruled by systems that provide and promote sender address verification and authentication.

Another emerging trend in email security is the use of data leakage prevention and mobile filtering, says Martha Vazquez, senior research analyst with Frost & Sullivan, a market research firm. Data leakage prevention tools keep authorized users from inadvertently mishandling valuable corporate data by preventing such data from leaving the company network via email or other communications means. Mobile filtering tools protect users who are working outside the corporate network, such as traveling users who must log onto outside networks in order to get work done on the road.

Sean Brown, technical product manager for IBM’s Proventia Mail and Content Security (www.ibm.com), says administrators comparing email filtering solutions should use filter quality measurements provided by independent third parties in order to compare the efficacy and false positive rates of competing solutions. In addition, Brown says administrators should employ multiple layers of content-based filtering methods instead of relying on just one or two methods.

Email encryption is another useful email security technology. John Dasher, director of product marketing at PGP (www.pgp.com), says convenience, cost, and risk should be considered by administrators seeking to implement an email encryption solution.

Key Points

- Email attacks such as spam and phishing continue to increase in both frequency and sophistication.
- Filtering, a useful tool for protecting email systems, may no longer be the most reliable way to protect email systems.
- Protection of email for mobile users is increasingly important to enterprises with lots of mobile employees.

For example, adds Dasher, gateway-based email encryption is fast and easy to deploy and manage; however, gateway email provides little protection from insiders who read other peoples’ email stored in a mail server.

Knowledge Is Power

The best way to ensure email in an enterprise stays secure and well-protected is perhaps the simplest: knowledge. Steve Kirsch, founder and chairman of the board for Abaca (www.abaca.com), a provider of email protection hardware gateways, says employee training is a big deal, especially in non-tech companies where employees may not be as savvy about email threats such as spam or phishing.

“Non-tech-savvy workers tend to be the biggest security hole, whether it’s from viruses or phishing. Even with a good spam solution, users may release phished messages or click on dangerous links,” says Kirsch.

Technologies designed to attack email systems and steal data grow more sophisticated every day. Email security technologies and users must become more sophisticated, as well, if administrators can expect to have any hope of staying in the email security arms race. [P]

Key Terms & Technologies

- Directory harvest attack:** A method used by spammers to “harvest” legitimate email addresses from servers by using well-known first and last name combinations.
- Phishing:** Attacks that use fake Web sites impersonating well-known brands (such as banks) in order to steal confidential account access information from victims.
- Data leakage prevention:** Technology designed to prevent the sending of sensitive corporate data outside the enterprise network boundaries.
- Email encryption:** Technology used to make email communications unreadable by eavesdroppers.

TJX Announces Data Breach Settlement

TJX Companies, the owner of T.J. Maxx, Marshalls, and other retail stores in the United States and Canada, has announced a \$9.75 million settlement with a group of state Attorneys General in regard to a hacking of its customer data during 2005 and 2006. Incorrectly secured wireless hotspots in some of its stores allowed hackers to compromise between 45 million and 94 million payment cards, the company announced in early 2007. Among other provisions, the \$5.5 million base settlement includes \$1.75 million to cover investigations by the states, plus an additional \$2.5 million for the foundation of a new Data Security Fund the states can use to research and implement better security.

Study: Internet Advertising Creates Jobs

Interactive Internet advertising is responsible for creating 1.2 million jobs that pay above-average wages and represents 2.1%, or about \$300 billion, of the total U.S. gross domestic product, according to a new study commissioned by the Internet Advertising Bureau and conducted by Hamilton Consultants and two Harvard Business School professors. “This study underscores that the Internet ecosystem is generating an increasing level of economic activity in every corner of the nation,” says John Quelch, one of the Harvard professors. Adding to the 1.2 million jobs figure are another 1.9 million employees working in positions that support those with jobs directly tied to the Internet, bringing the total to 3.1 million Americans “employed thanks to the interactive ecosystem.” The study also reports that more than 20,000 Internet-related small businesses, most with fewer than 10 employees, exist in the United States performing such services as Web hosting, ISPs, Web design, publishing, and software consulting.

VCs To Invest More In Green Technologies

Green is where it’s at. This according to an annual Global Trends survey of 725 venture capitalists conducted by Deloitte Research and the National Venture Capital Association. According to the survey, 63% of those queried predict investments in green, or environmentally focused, technologies will increase during the coming three years and at a faster pace than traditional venture capital areas, including semiconductors and electronics and software. About 6% of those surveyed predict investments in green technologies will decrease. Two-thirds of those surveyed residing in the Americas indicate they plan to increase investments in clean technologies, possibly because of “an increase in the government/political support for clean tech, and VCs are looking more to government participation in both investments and incentives.”



Yahoo! Announces New CFO

After more than three months of searching to replace former CFO Blake Jorgensen, Yahoo! has hired Tim Morse from Altera, a Silicon Valley chip maker. Before serving as Altera’s CFO, Morse spent 15 years at GE. This is one of Yahoo!’s first major executive hires by CEO Carol Bartz, who took over the company in January. Bartz is determined to bring the Internet company back into its once-held market dominance and, in doing so, is aiming to make Yahoo!’s executive structure more efficient. Bartz says, “Tim has a proven ability to translate strategy into structure, process, and execution, and I am delighted that he will be joining my leadership team to help drive Yahoo!’s growth.”

SIX QUICK TIPS

Make Employees More Mobile Without Breaking The Budget

Options Include Lowering Device Costs, Centralizing Management & More

by Elizabeth Millard

INCREASINGLY, employees expect more mobility, either when working from home or while they travel, and IT departments have to meet that need without creating a negative impact on their budgets. Here are some quick tips for keeping costs in line and still creating a robust mobile workforce.

Consider Centralized, Server-Based Computing

With thin clients in the office and a mirrored setup at a remote location such as a

home office, capital costs are reduced, even with an expenditure on VPN technology, says Jack Hembrough, executive vice president of sales and marketing at Leostream (www.leostream.com), a connection broker that provides access control and management of virtual and physical desktops.

With a centralized, server-based approach, there's less need for larger hard drives on devices or PCs, which reduces the amount that needs to be spent on disk encryption, Hembrough believes.

Employees can also use less expensive devices, he adds, such as smartphones

instead of laptops. "The only costs outside the very visible data center are the inexpensive edge device and the bandwidth to deliver the data center output," he says. "Virtual and hosted desktops can be brokered to virtually any end point."

This infrastructure can be smart enough to know how the mobile user is interacting with the data and then provide the appropriate resource from the cloud, he adds. "With computationally intense activities taking place in the data center, the mobile worker can be equipped with any low-cost display and input device."

Employ Remote Management

Related to a centralized model, remote management can be used to troubleshoot PCs or devices, says Nick Cavallancia, vice president of Windows management at ScriptLogic (www.scriptlogic.com), a desktop management firm.

"In order to ensure that remote workers have access to a standardized network environment and the information they need to be productive, IT administrators are encouraged to adopt third-party tools to support remote management of workers' desktops," he says, adding that this approach provides significant time savings for administrators.

If an IT employee can access a machine remotely, it cuts down on the need for users

and support personnel to talk through an issue over the phone or have the user bring the device in to IT. Also, this usually eliminates the need for an administrator to physically visit a PC that might be used at a home office.

Use Web-Based Applications

Another cost-saver is the use of applications that are Web-based, says Martin Schneider, director of product marketing at SugarCRM (www.sugarcrm.com). This approach can be especially helpful if employees already use a range of mobile devices and it's too difficult or expensive to get them herded toward using one brand of device.

"There are platform investments, device fees, and maintenance costs associated with deploying and upgrading applications that are deployed directly on the mobile device," he says. "Organizations can avoid these costs by moving towards simpler, Web-based versions of popular application functionality like CRM and ERP tools."

Also helpful might be cutting down on the number of applications that are being used, adds Forrester Research analyst Ben Gray. He points out that the more applications that are employed, the more an IT department will have to spend on support. "The more simplicity you can create, the better," he says. "Also, putting restrictions on employees will reduce the applications that they download, and that's better for security overall."

Standardize Device Usage

With Web-based applications, there can be a greater variety of devices in the mix, but to save even more money on support, many companies have found that getting employees onto one platform is useful. This is sometimes easier said than done, because some employees tend to have

SIX QUICK TIPS

Comply With HIPAA

Requirements Are A Challenge, Especially As Technology Changes

by John Brandon

HIPAA (Health Insurance Privacy and Accountability Act) compliance is one of those oft misunderstood, yet critically important, endeavors. The compliance regulations can change—most recently as part of the economic stimulus plan. There are technical issues to resolve, such as

securing all email and storage operations, and administrative policies to set, such as training employees to avoid portable flash media. To help you understand some of the latest issues and comply with HIPAA regulations in your organization, several experts provide their knowledge and advice on the latest HIPAA compliance issues below.

Track Amended Laws

HIPAA lawyer and consultant Wayne Miller says the new stimulus bill amends HIPAA laws with even tighter requirements for data encryption. His advice: Track HIPAA laws closely and make sure you know about any new additions that could affect business operations and storage.

"The new law re-emphasizes that HIPAA compliance requires a number of security measures for electronic data that is 'protected health information' covered by HIPAA," Miller says. "The top two measures for a data center would be effective encryption, especially of data that [is] stored on disks, flash drives, and other portable devices, and, in conjunction with this, software that mandates encryption or automatically encrypts data that is to be copied to portable media is critical."

Root Out Unauthorized Devices

IT managers know that thumb drives, external hard drives, and flash drives are in abundance these days. According to Nick Cavallancia, the vice president of Windows management for ScriptLogic (www.scriptlogic.com), IT needs to root out these devices and make sure employees know they are a compliance risk. He says organizations should carefully consider their use.

"Beyond laptops and PDAs, portable storage devices, such as USB thumb drives, are often used to store and transport patient data,"

says Cavallancia. "The risk of a lost memory stick is as detrimental to a health organization as a lost laptop—possibly even more so, since most sticks do not feature embedded security, and access to a patient's data would be immediate. Healthcare organizations need to establish a policy to prohibit or monitor the use of these devices."

Manage Risk & Reward

Avi Deitcher, an IT consultant who advises companies on HIPAA regulations, says that companies should examine all policies, hardware, networks, and other IT equipment to understand the inherent risk and reward associated with HIPAA. Too often, a smaller organization (one with fewer than 1,000 employees) will look at the specifics of HIPAA without thinking through the broad brush issues—examining at a high level whether the company is secure and can avoid the pitfalls of a data-discovery process.

"Every step a provider does or does not do has a cost and a return in terms of reducing risk," says Deitcher. "The amount of risk reduction does not necessarily correlate to the cost. It is critical to understand the costs and returns of each step. Does every piece of data need to be encrypted? Does every user need a VPN? At the same time, to paraphrase the old line about education, if you think security is expensive, try being breached."

One example that Deitcher mentioned is to go ahead with a strict audit process because an outsider can help an organization see the overarching issues easier than specific vendors who might only look at email compliance or applications. He says audits will help you see problems, but fixing them

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BONUS TIPS

■ **Create a support matrix that includes an online FAQ section for troubleshooting common problems.** This can give employees more power to do their own support, particularly if an IT department is doing the same fixes repeatedly. The FAQ section can

include such usual issues as finding a missing file, connecting from a hotspot, and accessing server-based databases.

■ **Get ruggedized devices if frequent breakage is a problem.** In some industries, employees aren't connecting from

meeting rooms, they're trying to access info from construction sites, warehouses, or other environments that are inhospitable to sensitive devices. Getting a ruggedized device or even just a rugged case can prevent costly repairs and replacements.

BONUS TIPS

■ **Know what to delete.** Archiving data—especially emails—is important for HIPAA compliance, but it is not always easy to determine when it's acceptable to delete data. Dave Hunt, CEO of C2C Systems (www.c2c.com), says it is really a legal issue that requires consultation with experts. "It is essential that organizations have systems that cope with the directives of their legal counsel," Hunt says. "The practices can vary from 'delete it before it gets to

the archive' to 'delete after X amount of years.' It is imperative that complex requirements can be easily met and not that the organization has to revolve around limitations of a restricted archiving system."

■ **Balance user requirements.** Rene Poot, a systems engineer at NCP Engineering (www.ncp-e.com), says SMEs should balance user needs with HIPAA requirements to make sure their work is not overly

restricted, which can lead to breaches.

"When a user is confronted with a lot of barriers that keep them from performing their work in an efficient, effective manner, they will inevitably find a way to circumvent this," Poot says. "By making the procedure of establishing a secure connection as easy and as transparent as possible for the user, yet maintaining a high level of security, an administrator can tick this requirement on the list."

strong preferences when it comes to what they'd like to use.

But having most employees on the same devices can cut down on support costs, because upgrades and patches can be rolled out through the network more seamlessly, and IT employees can be trained to repair specific devices rather than trying to become experts on a breadth of devices from several different manufacturers.

An important consideration when choosing a device is remote data-wipe capability,

sometimes called a kill switch. Being able to create a set of triggers, such as an attempted download of large customer databases, can be a powerful security measure, says Cam Roberson, director of marketing communications at data-security firm Beachhead Solutions (www.beachheadsolutions.com).

"It could be seen as an extreme reaction to a security threat," he says. "But the amount of damage, and of company cost, that might result from a data breach justifies being a little extreme." 

Biggest Cost-Saver:

Limit Mobility

Browser-based functionality and central management can go a long way toward reducing costs, but another big money-saver is simply to limit the number of employees who are mobile and therefore need support, says Martin Schneider, director of product marketing at SugarCRM (www.sugarcrm.com).

"Companies have to ask the important question of how many users really need mobile access," he says. "If everyone needs mobility, sometimes

a complete reassessment is needed in terms of what systems are being used. It all depends on business case."

Particularly helpful might be pilot projects, in which an entire department is made mobile, and IT can later determine who's using the technology most often or most effectively. By establishing that a small rollout is a pilot project and establishing an end date, users won't feel like they've been given mobility and then had it yanked away.

Long-Term Return On Investment:

Update Systems

If most employees need mobility, it's likely that a company will have to update older systems that don't support devices very well. This can be a large undertaking in terms of updating equipment, maintenance contracts, and support agreements, but if a company is increasing mobility

of employees, this type of revamp can pay off in the long run, says Martin Schneider, director of product marketing at SugarCRM (www.sugarcrm.com).

Browser-based mobile applications can be helpful for circumventing the challenges

that come with older equipment, but only for so long. As mobile use expands, support will need to extend to the entire data center with a cohesive strategy, rather than a piecemeal approach where devices are supported only by newer servers and security appliances.

may require the help of a specific vendor well-versed in HIPAA compliance for that area of IT.

Not All Safeguards Are Technical

As IT managers, it is easy (and just) to choose technical solutions to technical problems. Yet, once the technical constraints are in place, HIPAA compliance is often a matter of training and administrative policies, says Akash Desai from Enterprise Risk Management (www.emrisk.com). Desai says that administrative controls are important because they relate directly to the technical measures.

"Companies should adopt, implement, and enforce formal policies and procedures with a clear idea on how the data center plans to secure PHI [protected health information] and ePHI [electronic protected health information]," Desai says. "Employee training must be carried out on an ongoing basis, which includes precise directions on how employees are supposed

to handle PHI and ePHI. Appropriate contracts and controls must be established if the data center further outsources any component of its business that involves PHI and ePHI." 

Best Tip:

Networks Are Cheaper Than Applications

IT consultant Avi Deitcher points out an excellent HIPAA compliance tip: Fixing network operations for HIPAA compliance is actually cheaper than fixing the applications that may leak information. Networks are expensive—the servers, logging software, firewalls, VPNs, and other security measures can add significantly to company IT costs, he says. Still, they are less expensive than the customizations and support costs for applications that run on the company networks and should be considered first.

Best Return On Investment:

Monitor Sensitive Data

Monitoring sensitive data is critical because it can protect a company from data breaches that lead to costly legal entanglements, says Dave Meizlik, a spokesperson for Websense (www.websense.com).

"Organizations need to identify what records are sensitive [and] monitor who is using them and where they're sending them," Meizlik says. "The

most efficient way to accomplish this is to monitor common business communications channels, including email and the Web, to measure the type and quantity of data loss. With this visibility, an organization can measure their risk and determine whether the problems they're experiencing are the result of broken business processes, employee error, or malicious behavior and decide on a remediation strategy."

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How To

Determine When & How To Upgrade To Internet Explorer 8

New Features Make The Move To A New Browser Worthwhile

by Jean Thilmany
• • •
IS YOUR ENTERPRISE considering a move to Internet Explorer 8? Upgrading should generally go smoothly, but data center managers should be aware of a few factors that could come into play during the transition.

The new browser offers enough compelling features to make upgrading worth your while, says Michael Cocanower, founder and president of itSynergy, a consulting group that provides information technology services for small to midsized enterprises. With the upgrade to IE8, users

will experience benefits such as increased speed over that of Internet Explorer 7, backward-compatibility with IE7, and new security features.

IE8 ships with a feature called Smart-Screen Filter, which is designed to block users from visiting phishing sites or Web sites that attempt to load their systems with malicious software, Cocanower says. Also, the upgrade has been engineered to improve the performance of Web applications such as Gmail and Google Docs.

The browser was available in beta form for some time prior to Microsoft's March

release. The new browser is available for Windows XP/Server 2003/Vista/Server 2008. It's the default browser for the upcoming Windows 7 and Windows Server 2008 revision 2 operating systems.

If you used a beta version of IE8, then you'll likely be pleased to learn that the complete version Microsoft released in March is not all that different from the beta version. Cocanower says that aside from some minor tweaks, the code is very much the same.

If you haven't had access to the beta and are new to IE8, you'll want to perform a few basic compatibility checks on your existing apps to make sure everything will work together smoothly. Refer to the "Check For Compatibility" section for more on this.

If you haven't yet upgraded to IE8, there is a chance that your enterprise may have unwittingly upgraded to the new browser following its official release, but it is possible the upgrade was blocked. Windows users who normally receive automatic updates should have received the IE8 update, as well. If the automatic update was blocked on your system, you need to determine why the update was blocked and resolve the issue so you can

release the upgrade and install it on your system.

Check For Compatibility

Prior to upgrading to IE8, test all the apps necessary to your enterprise's daily operations for compatibility. "You need to make sure that all of the applications running in your environment can handle IE8 since the browser is so tightly integrated into the Microsoft operating systems," says Cocanower.

Especially tricky to diagnosis for compatibility are those business applications that have IE embedded. For these, the Internet Explorer interface might not be immediately obvious when using the application, Cocanower explains. For instance, Cocanowner's company uses a program specifically designed for IT consulting companies. "That application makes heavy use of IE8, but unless you were a geek, so to speak, you wouldn't know that," he says. "So, if you weren't being careful, you'd overlook that application, upgrade, and realize [later] that . . . it might not be compatible with the latest version of Explorer."

When you're sure you are OK from a compatibility standpoint, all you need to do is release the IE8 update, says Cocanower.

TOP TIPS

- Before installing the new browser, ensure all your applications are compatible with Internet Explorer 8.
- You'll need to uninstall any IE8 beta versions you

- may have before upgrading to the new browser version.
- The move from Internet Explorer 7 to IE8 won't be a major shift, but you should

- consider conducting training for employees and teach them how to use the new features.

How To

Measure & Track Server Power Consumption

Monitor Systems For Better Management

by Bruce Gain
• • •
IT DEPARTMENTS CONTINUE TO struggle with making sure there is enough power to keep the server room up and running. But without much granular data on how the equipment consumes electricity, power planning often remains a hit-or-miss proposition. However, smarter hardware and software that offer real-time monitoring to comprehensively track where and how electricity is consumed can offer opportunities to better manage and even reduce a server's power draw.

Monitoring might reveal, for example, servers that account for a significant chunk of the data center's total power feed but actually run idle most of the time. Or it may lead to the discovery of a cooling system that is over-consuming precious watts of power without keeping temperatures down where they should be. These are just a couple of things that tight monitoring can reveal, allowing for IT personnel to make modifications to get more performance out of the watts consumed. With electricity costs accounting for as much as 20% of IT budgets, according to Symantec, slashing power consumption by just a few percentage points can add up to major cost savings.

"The benefits can be very significant, with direct power cost avoidance often being enough to justify the power monitoring investment," says Steve VanTassel, CEO of Packet Power (www.packet-power.com).

Getting Started

Before putting a comprehensive power monitoring system in place, it is important to assess what the data center's power needs are. Everything that runs on electricity in and to the server room must be taken into account and tracked. All servers and related networking equipment necessitate the same level of scrutiny as equipment that is not directly related to IT does, such as cooling and the lighting infrastructure, says Robert E. Hanson, an innovation leader for IBM's Systems and Technology Group. "Non-IT power can be up to 50% of the total power consumption of a data center, which is why it is also very important," Hanson says.

It is also necessary to determine what you plan to do with the data before getting started and then design the monitoring system so it communicates information to meet those goals. "Determine what you need the information for. This will determine the level of granularity and accuracy you need," VanTassel says. "If your goal is to establish a baseline, such as a PUE

[power usage effectiveness] score, and to gauge improvement across time, it may be adequate to start with a basic monitoring of current at the rack level."

Assessing what needs to be monitored before investing in new power-tracking equipment and software will offer a better idea of the costs involved, which can vary. "It is difficult to put a price tag on how much it will cost to implement a power monitoring system," VanTassel says. "Costs vary widely depending on both the type of monitoring solution and the cost to take whatever action is needed to lower power consumption."

The Hardware

Despite rising electricity costs and heat problems, admins still use rudimentary approaches to tracking power consumption.

"The tried-and-true method has always been to get a meter out and manually check circuits. This is labor-intensive, provides a current-only reading, can be hazardous on larger circuits (and as such require an electrician), gives a point in time reading only, and relies on the user to record the data somewhere useful," VanTassel says. "In many data centers—particularly midsized facilities—this is still the norm."

However, UPS (uninterruptible power supply) systems and PDUs (power distribution units) have begun to offer power usage measurements down to the outlet levels, meaning you can track electricity consumption of individual servers to know what specific servers are drawing.

"You can now get very granular detail on an outlet level about power consumption for individual servers, whereas just a year ago, you could only measure a circuit or a few servers together," says Joe Skorjanec, technology manager for Eaton (877/785-4994; www.eaton.com).

TOP TIPS

- Determine what the server room's true power capacity is and program the monitoring system to send alerts when limits are close to being reached.

- Make sure to use monitoring to take the appropriate action. Just learning about inefficiencies is the beginning step. "[Power-monitor-

- ing] data is useless if you do not have a strategy for improvement," says Matt Kightlinger, director of solutions marketing for Emerson Network Power's Liebert products business. "But even slight improvements in one area can lead to significant efficiencies down the power stream."

Simplify the process by tracking the same type of power measurement, such as amperage, voltage, or

“The upgrade process is relatively painless and will happen automatically via Windows Update if you have that enabled,” he says. “Or you can use your existing patch management tool to install it if you don’t use Windows Update.”

The transition from IE7 to IE8 is easy for most users, Cocanower says. “The learning curve to installing it is very low because [IE8] is so similar to [IE7],” he explains. “Though it does have some new features, it’s not, for example, the change [we saw] between Office 2003 and 2007, which was a big shift.”

When installation is complete, you can take your time training employees on IE8’s new features. Cocanower suggests rolling out some short tutorials; that way, users can take advantage of the new features early. You can turn to Microsoft’s Web site (www.microsoft.com/windows/internet-explorer/videos.aspx), which has released

Key Points

- Prior to upgrading to IE8, test all the apps necessary to your enterprise’s daily operations for compatibility.
- The IE8 upgrade is fairly painless, but some users are saying it does require patience.
- The switch to IE8 and its new compelling features should be easy for most employees to adapt to.

stall the IE8 beta if you used it previously. Kannan says that although the IE8 installer will do this for you automatically, you’ll be prompted to reboot twice. The first reboot will remove the beta version from your machine, and the second reboot will complete the IE8 installation.

The transition from IE7 to IE8 is easy for most users.

a number of videos to help familiarize users with the ins and outs of the new browser.

Installation Advice

Vishwac Sena Kannan, international program manager for Internet Explorer, summarizes the major changes you can expect to see after upgrading to IE8 in his Internet Explorer blog. Among his writings are information about system requirements, troubleshooting, and other installation topics.

Before you install IE8, there are a few things you need to do. You need to unin-

You’ll need to install an update if you plan to run IE8 on multicore WinXP SP2 x86 computers. You can refer to article 32823 or 946501 on Microsoft’s Help And Support site (www.support.microsoft.com) to resolve the issue, in which an access violation occurs when an application exists on a Windows XP SP2-based multicore computer.

Cocanower says the IE 8 upgrade is a smooth one provided you have done enough testing on the front end to ensure compatibility with whatever applications your enterprise uses regularly. ■

Key Points

- Tracking power usage to eliminate waste can lead to huge cost savings.
- Hardware and software used for monitoring applications have recently improved and now offer granular measurements about data center power consumption.
- Despite advances in monitoring technology, it is up to the admin to make use of the data in order to make improvements.

The Challenge

Smarter PDUs, UPSes, sensors, and other hardware designed to track power consumption used in conjunction with software that stores and trends data are indeed powerful tools that are also becoming more affordable for small to medium-sized enterprises. But challenges exist, especially when it comes to interpreting the huge aggregates of data that monitoring reveals.

“When you have [hundreds] or thousands of servers deployed, you gather a lot of data, so the challenge today is how to make sense out of all of this data that you have access to,” Skorjanec says. “Since many companies have cut their staff, there are fewer people trying to do more, and it is really challenging. You have these great products, but programming the software to get it to do what you want it to do is a challenge.”

Ultimately, it is up to the administrator to use the data in such a way as to make power-saving modifications to the data center. “The challenge from a user standpoint is taking all of these measurements from the software and logically making sense of what they are measuring.” ■

But in addition to using UPSes and PDUs to measure server power draw, you need to use intelligent sensors, as well, especially for non-IT-related equipment. “[UPSes or PDUs] only give part of the power-consumption picture,” says Michael Petrino, vice president of PTS Data Center Solutions (www.ptsdcs.com).

Indeed, sensors can now track real-time power usage of non-IT equipment to complement UPS and PDU units. “The data center industry is in the process of instrumenting or adding sensors to all equipment so that a ‘management server’ can collect the power and thermal data,” Hanson explains.

Crunch The Numbers

In addition to PDUs, UPS units, and sensors, you need software that can aggregate, process, and analyze the data the hardware provides in such a way as to allow you to make decisions about how to curb power usage. You can incorporate the software into server management tools.

“Your server management software stack should have a layer that collects all the data from the hardware, a layer that manages and organizes all the data coming in from the sensors, and a layer that displays that data back to the data center operator, which perhaps shows thermal maps for hot spot detection, power usage, or efficiency calculations,” Hanson says. “Beyond that you may want analytical analysis of the data that would allow you to automate the management of [the data center] to allow for real-time decisions on data center management by the operator.”

The software should also offer Web and SNMP monitoring capabilities, Petrino says. “Start gathering and logging that data,” he says. “From there, look at SNMP and dry contact monitoring solutions that report back to some form of HTML Web interface.”



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CIOs Cut IT Budgets

A research report published by Gartner found that in the first quarter of this year, 42% of CIOs underwent budget cuts, with IT shops cutting budgets by an average of 4.7%. The study consisted of 900 CIOs with a combined \$77 billion in IT spending. Gartner reports that 54% of CIOs saw no change in their IT budgets, and 4% saw an increase. CIOs in healthcare-related fields reported budget increases of an average 2.2%. When performing budget cuts, Gartner says, most CIOs are looking at renegotiating vendor contracts and reducing head counts.

Microsoft Corporate VP Retires

After serving 19 years in Microsoft's Start-up Business Accelerator, Sanjay Parthasarathy will retire this September. Microsoft says Parthasarathy's departure has been planned for about a year and that after he retires, Parthasarathy plans to return with his family to his birthplace in India. Filling Parthasarathy's position will be Microsoft's Corporate Vice President Amit Mital, who is currently overseeing Microsoft's Unlimited Potential Group. Mital will lead both groups. In addition to working in the Startup Business Accelerator, Parthasarathy worked in Microsoft's Developer and Platform Evangelism Group, Microsoft's Channel 9 Web site, and Imagine Cup.



Adobe Sales, Profits Decline

Adobe Systems, the software developer behind Flash animation and PDFs, announced a decline in Q2 profit and sales. For the three months ending May 29, the company says it earned \$126.1 million, or 24 cents per share, down 41% from \$214.9 million, or 40 cents per share, for the same quarter last year. However, Adobe's revenue surpassed Wall Street's expectations: Revenue fell 21% to \$704.7 million, which is slightly above the \$694.8 million predicted by Thomson Reuters. CFO Mark Garrett says the company expects an uptick in sales in North America for the current quarter but warned it could be offset by declines in Europe and Asia.

Microsoft, Mississippi Settle Suit

Microsoft and the state of Mississippi have reached a settlement in a class-action lawsuit over the pricing of Microsoft's Windows and Office. Under the deal's terms, Microsoft will pay \$40 million to Mississippi and \$60 million of vouchers to businesses, consumers, schools, and local governments that have purchased Microsoft products since 1996. The suit claimed that Microsoft engaged in anticompetitive behavior that caused customers to pay more for its software than if there had been competition. The case is similar to several other lawsuits that Microsoft has previously settled with states.

Netbooks: Who's Adopting?

How Are Netbooks Impacting The Business Market?

by Christian Perry

LIKE MINIATURE freight trains, netbooks are making deep inroads into the PC market, in turn forcing enterprises to lend these mobile marvels serious consideration. Although netbooks have certainly found favor with consumers—even wireless providers are now selling them along with mobile phones—their viability in business settings remains questionable.

According to DisplaySearch, more than 27 million netbooks will ship in 2009, reflecting a 66% increase over the previous year. Standard-sized notebooks, on the other hand, are estimated to see only a 3% sales increase, or 133 million units shipped. However, DisplaySearch attributes this current surge partly to the lagging economy and expects that buyers will return to purchasing more full-featured and higher-priced notebooks after the economic crisis.

Just as cost-effective netbooks are enjoying greater sales due to the economy, they're also filling needs in enterprise settings—but only for certain segments. In a recent study by Chadwick Martin Bailey, a majority of IT decision makers indicated that netbooks could find a home in their organizations with employees who travel or require mobility services. On the other hand, only a small number of respondents said they would deploy netbooks on a wide scale.

Making The Grade

While the enterprise setting appears to be a mixed bag for the netbook, the education market could be a prime fit. At the Seattle Academy of Arts and Sciences, incoming ninth-graders buy a specific notebook/netbook model from the school and carry it through the 12th grade. In the academy's middle grades (six through eight), the school owns the laptops and keeps them in carts within specific classrooms. Each year, the academy must make purchasing decisions for both the ninth-grade and middle-grade machines.

"There are four big issues in making a decision about whether to try netbooks on a larger scale," explains Douglas Ambach, the academy's assistant CFO and director of operations. "First, we need to know if our students and students' parents want netbooks or laptops. Second, we need to determine whether netbooks are too small. Third, we need to choose a producer likely to keep producing and supporting the netbooks over a four- to five-year period. Fourth, we wonder if netbooks will prove as reliable as the laptops we have been buying [for] a four- to five-year life."

Ambach says that the success of netbooks in schools will depend on the size of the screen and keyboard, adding that his academy is more likely to purchase laptops with larger screens and keyboards if they come down in price. Students at the academy receive plenty of school content through their notebooks, but small screens can make reading that content difficult. In particular, reading spreadsheets and data can be challenging on a small screen, and Ambach says that netbooks would be a harder sell for the academy's math and science classes.

However, Ambach points to what he considers the clearest benefit of netbooks: lower cost to purchase and replace if the

Key Points

- Both the economy and mobile needs are spawning increased netbook sales and attention in the enterprise space, although standard-sized notebooks still reign supreme in business settings.
- Netbooks could discover a sweet spot in schools, universities, and other educational settings, where students could benefit from increased portability and administrators could benefit from lower prices.
- Lack of performance will remain a roadblock for netbooks in enterprise settings, but military, police, and field force automation settings could nonetheless find value in these devices.

devices are broken or lost. "The retail prices for netbooks are so much lower than laptops that we could even forgo purchasing the additional repair warranties we regularly purchase with laptops. Also, the size and weight make them better for students to carry around in backpacks," he says.

Corporate Capable?

On the enterprise side as a whole, Paul Moore, senior director of mobile product management for Fujitsu America (www.fujitsu.com/us), says he feels the netbook's prospects for adoption aren't particularly good. The devices are designed to perform relatively simple tasks, run Windows XP Home, have limited to no expansion, and have small screens and keyboards, he says. But not everyone agrees that the outlook is dim.

"It is still early in the market development of netbooks, but we believe that the prospects in the enterprise environment are strong," says Rob Cheng, CEO and co-founder, PC Pitstop (www.pcpitstop.com). "Our research shows that netbook adoption in business [settings] is significantly behind that of the consumer market. However, the

factors driving netbook adoption [in the consumer space] will be the same ones that drive the corporate acceptance. Netbooks are the perfect combination of great price and portability. It is not the solution for all corporate needs, but ultimately, netbooks will establish a strong position in companies that use laptops for travel and communication purposes."

One of the roadblocks currently preventing netbooks from obtaining a greater enterprise presence is their lack of performance, says Don Ryan, vice president of technology and media for TNS North America. He notes that for the next two years, the enterprise opportunity may be limited because of the netbook's lower processing capabilities and also because some of them run Linux instead of the enterprise-standard Windows operating system.

"A more important reason is supply-side considerations," Ryan says. "The major vendors such as HP are positioning these solutions as consumer devices and at this point do not want to confuse the market by positioning them as business and consumer systems. APAC [Asia Pacific] companies that will produce these systems, such as Acer, do not have a strong presence in the enterprise. Until HP and Dell decide that a netbook fits into an enterprise environment, the market will be slow to take off in this segment."

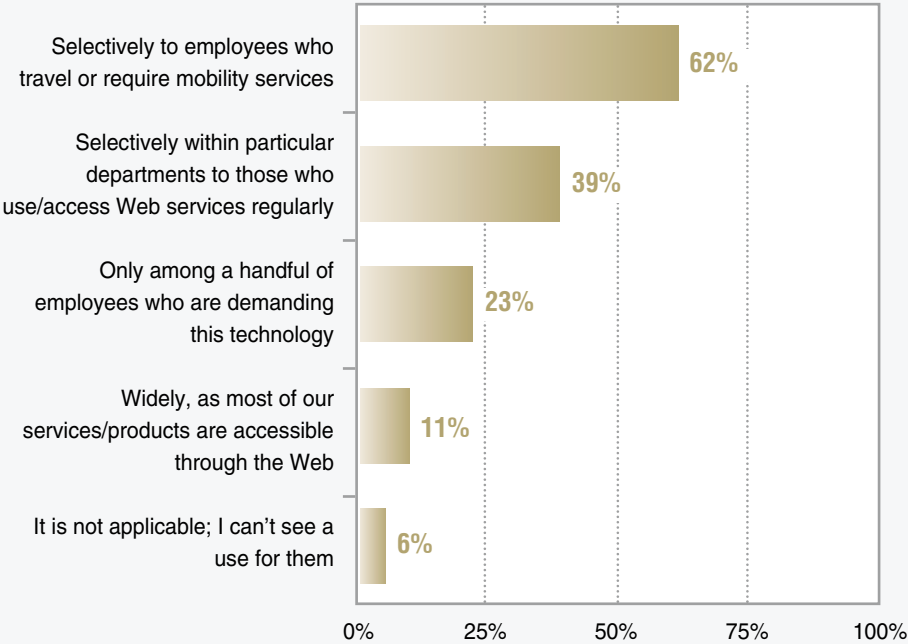
Finding A Niche

Research indicates that business adoption of netbooks will center primarily on mobile workers, but experts envision specific industries that could take unique advantage of the devices. For example, Cheng says that military units could find value in the smaller form factor, as could police forces, whose squad cars are usually equipped with laptops. But, as Cheng points out, laptops "seem overly heavy for the task at hand, which is often checking driver information from a central computer."

Fujitsu's Moore adds that field force automation settings, where tasks are repetitive and planned, could utilize netbooks. "Planogramming, inventory, and small businesses like insurance, remodeling, and landscaping are some examples," Moore says.

How Will You Deploy Netbooks?

When asked which future scenarios could prompt netbook deployment at their organizations, 158 IT decision makers overwhelmingly identified mobile workers as a primary trigger.



SOURCE: CHADWICK MARTIN BAILEY

Sustainability Plans For The Enterprise

Strategies Can Maximize Energy Efficiency, But Cost Is An Obstacle

by Carmi Levy

LONG AGO, business was simple: Make more than you spend. In recent decades, CEOs have grappled with increasingly complex business environments, rapid advances in technology, and tighter regulatory controls. Disaster recovery plans, privacy policies, and diversity programs have all become organizational priorities. The advancing green agenda means sustainability plans could soon become organizational goals, as well.

The Newest Buzzword

A sustainability plan is a framework for defining organizational goals in maximizing energy efficiency, reducing waste, and addressing social and cultural standards. Like a DRP (disaster recover plan), its focus is primarily long-term, and it demands a certain degree of cultural evolution. Unlike a DRP, most companies today don't have a sustainability plan in place. Burton Group Senior Analyst Nik Simpson says that isn't about to change anytime soon. Money—especially in a downturn—remains a sticking point.

“Until there is a downside over and above the operations cost of the average data center, you won't see companies rushing to put sustainability plans in place,” he says. “But if the government slaps a carbon tax on you, then the equations change.”

Simpson says until governments force companies to go green, the only rationale for having sustainability plans in place will be monetary, and as laudable as it is to improve operational efficiency, only positive-ROI initiatives will survive. Longer term, Simpson says things may already be shifting. A recent move by the European Union to publish voluntary guidelines for improving efficiency in data centers could be an early indicator for North Americans.

“It isn't mandatory at this point,” Simpson says, “but you can easily see it as the first step down the road to governments eventually mandating these standards.”

For now, however, money remains the key driver.

“Part of it is the whole green thing, but mostly companies that look at it in the IT environment are hoping for cost savings,” says Jack Gold, president and principal analyst of J.Gold Associates. “Problem is, it usually requires companies [to] spend

money on new and greener systems to make it happen, and right now, many companies are holding back on spending. Also, many companies don't have the resources needed to study the problem and make recommendations. Even if they do, they often don't have the needed reference materials.”

Making Power More Visible

Without that baseline understanding of how much power is being used, what equipment can be replaced, and what would be more efficient, Gold says it can be a challenge to calculate a realistic ROI. Greater transparency into power usage is an ideal first step toward building a sustainability plan. PUE (power usage efficiency) is a measure for understanding energy needs for both powering and cooling data center equipment and represents a good starting point.

Disaster recovery plans, privacy policies, and diversity programs have all become organizational priorities. The advancing green agenda means sustainability plans could soon become organizational goals, as well.

“Although most data center managers find this interesting, they've got no idea really what their PUE is, and they would have no way of calculating it,” Simpson says. “It's a highly useful measure to have, as it allows you to understand the impact of different projects on overall data center efficiency.”

Getting there demands a more granular approach to measuring power usage, though.

“Too many data centers are too reliant on just getting the bill from facilities at the end of the month for a certain amount of kilowatt-hours,” says Simpson. “There's no breakdown of how it's being used or whether it's being wasted. There needs to be a much greater degree of cooperation between the IT systems administrators, data center staff, and facilities staff so that each has a better understanding of the others' concerns.”

Better instrumentation helps, too, as it encourages more proactive management of

both power delivery and power usage, which ultimately drives efficiency.

New Hardware Strategies

Changing IT's views on hardware will also yield benefits. Simpson says just because a 10-year-old server still runs doesn't mean it deserves to stay in inventory. Rapid advances in hardware efficiency make shifting to a three-year life cycle for servers easier to justify.

“That old idea of being more sustainable by running equipment until it falls over isn't a good strategy from a sustainability point of view because you see significant advantages in the amount of work per watt of power that new servers have over old ones,” Simpson says. “You're not saving anything, really, by holding onto old equipment. In fact, you'll have more servers to support, they'll consume more power, and they'll generate more heat, which will drive up

Key Points

- Most companies will only buy into sustainability plans when they benefit the bottom line.
- Prepare for much stricter rules around energy use, allowable materials, and disposal policies.
- Know your current energy use to baseline sustainability efforts.

cooling costs. It's not a good idea considering how energy efficiency bumps have become so rapid.”

Virtualization supports sustainability by allowing further server and storage consolidation and getting more service

Sun Reportedly Drops Rock Project

Sun Microsystems has killed plans for Rock, a 16-core processor designed for high-end servers, according to a report in *The New York Times*. Sun initially planned to launch Rock, a five-year-long project, in 2008 but pushed the release back to the latter half of this year. Rock was reportedly going to include transactional memory, a way of simplifying parallel memory processes. Analysts have stated that the Rock project was ill-fated from the beginning, with too much money being invested in the project over too long a period of time, in addition to the release of new chips from its competitors. Sun sources cited in *The New York Times* gave no reason for the cancelation of the project.



Mobile Phone Market Declines

According to ABI Research, sales of mobile phone handsets declined by 11.9% year-over-year in the first quarter. A dip in sales is not unexpected at this time of year, as manufacturers typically release

new handsets before the holiday season, but such a dramatic drop was unexpected. About 35 million fewer handsets were shipped during this period than in the first quarter of last year. Factors involved include consumers tightening their belts and finding that the features they desire already exist in their current handset. Bucking the downward trend is the smartphone market, which looks to boost sales with the release of several high-profile handsets.

Windows 7 Users Can Downgrade Until 2011

Microsoft says it will let customers that purchase Windows 7 computers downgrade to Windows XP Professional until April 2011



or until the release of the first Service Pack for Windows 7. Insiders had speculated that new downgrade rights would only allow Windows 7 users to downgrade to WinXP until April 2010. Regardless, some industry analysts have predicted that few organizations will implement the new Windows OS for at least 12 to 18 months because of budget restraints and the need to thoroughly test the OS.

Data Domain Rejects EMC Takeover Bid

In the latest development in the bidding war for deduplication provider Data Domain, the company's board of directors has rejected EMC's bid of \$1.8 billion and is instead recommending that its shareholders accept a bid of \$1.9 billion from NetApp. EMC insists its offer is the better one, as it is all cash and could be closed quickly, whereas NetApp's offer is in both cash and shares. However, if Data Domain chooses to accept EMC's offer, it will owe NetApp a \$57 million termination fee unreimbursed by EMC. The bidding war began when EMC first countered NetApp's original offer of \$1.5 billion.

But Does It Pay For Itself?

It's one thing to want to save the planet and quite another to not destroy profitability in the process. Time and again, organizations speak at length about being more eco-friendly but stop short of investing when the costs begin to mount.

“Being green doesn't make any sense if it costs the company more,” says Jack Gold, president

and principal analyst of J.Gold Associates. “They need to evaluate not just on the social issues of green tech, but also the benefits to the company.”

When examined from an ROI perspective, however, many green initiatives can drive the bottom line, as well.

Gartner Survey: CIOs See Budget Cuts In The First Quarter

A worldwide survey of 900 CIOs facilitated by Gartner EXP (Executive Programs) found that the current economic situation has definitely impacted their budgets, with more than \$77 billion in revised IT spending reported by respondents. About half (46%) of respondents also reported changes in their 2009 budgets since they were originally finalized. More than 90% of firms changing their budgets made reductions in the first quarter, with an average reduction of 7.2%.

The survey, which was conducted from March 1 to April 30, found that the largest declines were reported by professional services (down 10%) and telecommunications (also down 10%).

“Both industries are the first to feel the impact of declining business activity and IT spending as companies look to cut back on their spend levels,” says Mark McDonald, group vice president and head of research for Gartner EXP. “Professional services firms were among the first to see a drop in revenue as CIOs cut their use of external contract labor. That development, coupled with the fact that most professional services firms have highly adaptive cost structures, would give them a position to cut costs as fast [as] or faster than revenues—hence the reductions in these firms,” he explains.

“[Telecommunications companies] are seeing increased pressure on their product margins, and CIOs are looking to renegotiate their voice, data, and video communications costs. These factors, combined with declining revenues due to the recession, would also lead them to look to better match resources to revenues.”

According to the survey, IT budgets have been reduced by a weighted average of 4.7% compared to the relatively flat budgets reported in a similar Gartner survey of 1,500 respondents conducted from September 2008 to December 2008. The survey also found, however, that CIOs expect the economy to turn around between the first and third quarter of 2010. McDonald says he'll follow what the CIOs say.

“Personally, I think that the CIOs are closer to reality than others who are calling for recovery in late 2009. I do not believe that CIOs will be in a position—or any company, for that matter—to invest much ahead of a recovery,” he says.

by Tessa Warner Breneman

Instant Messaging At Work

Many Enterprises Are Discovering IM’s Benefits, But You Must Be Sure It’s Secure

by Jean Thilmany
• • •

INSTANT MESSAGING IS becoming one of the most popular ways to communicate both within the enterprise and to outside clients. But IM doesn’t come without its own set of security and compliance issues of which IT managers need to be aware.

Many companies—health insurance providers, airlines, and even eBay—now make IM applications available on their Web sites that allow customers to communicate in real time with customer service representatives via instant messaging tools, says Esteban Kolsky, vice president of consulting firm eVergance who has served as a researcher for Gartner.

Consider the healthcare provider or university that can make academic advisers, professors, or nurses available in real time to answer customers’ questions via IM, Kolsky says.

Pharmaceutical companies have implemented IM to communicate with individual doctors’ offices. And some physicians now gather virtually via IM to discuss patient care as they review charts and test results in real time, says Rob Ingram, IBM senior product manager for Lotus Sametime.

“The benefit of IM is the capability to communicate through a different channel—to open a new channel of communication,” Kolsky says.

Small wonder, then, that more and more enterprises are looking to implement IM in one form or another. But in their haste and enthusiasm, many of these enterprises too often overlook the security aspects of IM, says John Scharfglass, president of IT company Compugeeks (www.compugeeks.net).

Though security is of greater concern to large enterprises with large amounts of private data to protect, such as those in the healthcare, education, and government realm, the security issue needs to be top billing for all IT managers, Scharfglass says.

Public Or Private?

IT managers must first consider whether the enterprise will need a private IM channel generally purchased through a vendor or a public channel such as the chat functions available via email or social network providers, Kolsky says.

Many enterprises will choose the former, Scharfglass says. “The AOL Instant Messengers and Windows Messengers of the world are great for personal use, but in a business environment, they pose huge security risks such as leaked trade secrets and financials, viruses, spyware, and loss of employee productivity,” adds Scharfglass.

Some organizations, however, may need both open and secure networks, Ingram notes. He points to the example of an academic institution that allows students to ask questions of their professors via an open channel that students generally use to chat with friends. The same school would choose a closed, secure channel to send private messages between advisors or administrators, Ingram says.

Other enterprises—notably those that must adhere to the Sarbanes-Oxley Act, FDA rules, or other regulations or legislation—will need to ensure the application they choose for IM will allow those messages to be archived against future audits, Ingram says.

The closed IM applications are offered as a hosted service, but many enterprises choose to run them in-house both for security purposes and to better integrate the application with in-house directories, Ingram says. The applications are then available on users’ desktops and, in many cases, can be integrated within the enterprise’s email program, he adds.

These applications encrypt the messages that flow between users. “They’re not just passing over the Internet where they can be intercepted,” Ingram says.

Security Software

When you’re choosing a private IM vendor, look to one that partners with third-party developers that offer add-on security software. Depending on the developer, that type of software will inspect the IM as it’s being sent and will block messages that violate company policy. Some software can also include legal language outlining company policy within each IM itself, Ingram says.

“Some medical companies may choose to put information that says the sender isn’t liable for medical information contained within the IM,” he says.

These services also automatically archive messages, sometimes necessary for

regulatory, legal, or other reasons, he adds. Many let you send file attachments over IM (for instance, the files doctors may mull over as they speak live about patient care).

Generally, enterprises choose the same kinds of security and enforcement policies for IM they already follow for email messages, Ingram says. Perhaps these add-ons’ most important feature is their capability to scan for viruses and prevent spyware, he adds.

One area rife for security breach is the point of interface between an enterprise’s

Key Points

- IM has a stepped-up role to play for many enterprises.
- Many vendors make IM software specifically for use within enterprises, and they’re offering ways to log and archive those messages and—most importantly—to secure the network.
- Public and private networks each come with their own pros and cons; private IM networks should be integrated with security software.

public and private networks. Private IM vendors generally offer their users the capability to link with public IM communities. Enterprises that use IM to speak directly to outside customers or clients welcome this type of public-private interaction, Ingram says.

Remember, however, that although security software can track and capture information leaving the private network at the gateway site, any information that makes it to the public network becomes part of that network.

“So you’re in that area where, if you’re really concerned about security, you really have to think about connecting the two entities,” he says.

Use Inside Companies

Attempts to monitor public IM use inside an enterprise can be difficult, experts say, because of the public nature of the network.

Choose a network that offers encryption. Then put policies in place that discourage employees from using other chat functions—or any chat function at all except for the private network—during working hours, Kolsky says.

The battle against public IM use will likely be a difficult one, however. That’s why it’s up to IT professionals to make sure it’s used safely and responsibly. P

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Virtual Desktop Infrastructure

VDI A Compelling Concept, But Early Adopters Must Be Nimble

by Kurt Marko

VIRTUALIZATION, a common feature in today’s data center, is coming to a desktop near you; however, just what form it takes is still debatable. The VDI (virtual desktop infrastructure) technology and market landscape is fluid and rapidly evolving, with several architectures and usage models competing for preeminence. Adding to the confusion, many vendors have rebranded existing products with the virtualization badge, attempting to capitalize on the hype, says Aly Orady, CTO at Pano Logic (www.panologic.com).

Info-Tech analyst John Sloan says, “VDI is an area that’s generating a lot of interest and a lot of piloting,” although deployments are still low. In a recent survey of North American IT managers, Sloan found about 5% have already deployed VDI with about one-third at some point in the planning, testing, or piloting cycle. Most pilot tests are small at 20 to 30 users, but Sloan expects adoption to increase significantly in the next three years.

VDI Market Overview

Burton Group Senior Analyst Chris Wolf segments VDI solutions into server-hosted and client-hosted architectures that are largely self-explanatory. The former, the more common and accepted type of VDI, entails executing OS images on a central server and displaying on a local client.

desktop solutions that integrate low-cost client devices, VM and user-management systems, and VDI-specialized network protocols and drivers that break the hardware-desktop link.

Hot New VDI Technologies & Trends

There are a number of innovative technologies that have improved VDI’s usability. An emerging, much-hyped technology with the backing of several key vendors is embedded client-side virtualization, which integrates a bare metal Type I hypervisor directly into a PC’s BIOS. Operationally like server virtualization, Wolf says this architecture opens up new usage scenarios, such as allowing laptop users to maintain a personal desktop VM, with their own software while simultaneously running a company-managed VM, which is a prerequisite for connecting to the internal LAN. A variant is the BYOPC (Bring Your Own PC) scenario in which users purchase and manage their own personal PCs running both enterprise OS image and personal OS image, with complete isolation between personal and corporate applications and data.

Although server-hosted VMs have largely stolen the limelight from shared terminal services, it comes at the cost of thicker, more costly end points and increased server load. Some companies have eschewed the “PC baggage” of desktop thin clients and instead offer what

large-scale enterprise deployments until the 2010 to 2012 timeframe. While he admits enterprises aren’t going to wholesale replace PCs with thin clients, Orady says full end-to-end VDI solutions are available and that enterprises should deploy them to that portion of their desktops causing the most administrative pain. He sees VDI following a gradual adoption

Key Points

- VDI (virtual desktop infrastructure) is a broad, malleable, and evolving concept that incorporates a variety of architectures ranging from client-side hypervisors on traditional PCs to purpose-built thin clients running proprietary display protocols.
- The ROI of a VDI implementation can vary widely depending on the solution architecture; however, savings are greatest in areas with high client administrative loads (such as education/training) or requiring tight control over the client desktop and security (such as manufacturing floors).
- VDI offers new capabilities such as decoupling desktop environments from specific hardware devices, the ability to quickly and transparently upgrade software, and increased client reliability by running VMs on data center-class servers and storage.

curve similar to that traversed by server virtualization, with enterprises initially converting 5 to 10% of the most propitious desktops, such as those in training rooms, manufacturing floors, hospitals, or call centers, and increasing VDI penetration as users and IT becomes more comfortable with the concept.

Given plummeting PC hardware prices, most VDI architectures don’t result in capital expense reductions—in fact, Calvin Hsu, director of product marketing at Citrix (www.citrix.com), cautions that VDI may necessitate costly network and storage upgrades. The more significant financial benefits come from reduced management and administration (up to 20% lower by Burton Group’s estimate), lower power consumption (when using thin clients), and lengthened hardware upgrade cycles (when reusing old PCs as VDI access devices). These must be balanced against the cost for backend VDI servers, storage, and software.

Burton’s Wolf concludes that “Desktop virtualization has come a long way in a relatively short time; however, the relative immaturity of desktop virtualization platforms and the rapid improvements in networked storage for virtual desktops are both good reasons to delay implementation wherever possible.”

The VDI (virtual desktop infrastructure) technology and market landscape is fluid and rapidly evolving, with several architectures and usage models competing for preeminence.

Server-hosted solutions range from those that deliver a complete, dedicated virtual OS to shared terminal services, what Wolf terms presentation virtualization. In client-hosted VDI, a VM image is typically downloaded from a central server but executed locally.

Sloan says several developments have led to increased enterprise interest in VDI. Foremost, the technology has advanced such that virtual desktops can now deliver a full desktop PC experience, including rich graphics, sound, streaming video, and control over local peripherals.

Sloan says that VDI is also being driven by a larger vision, primarily hyped by vendors, to decouple the OS desktop from a particular piece of hardware. As Wolf describes it, “The centrally located virtual desktop ensures that the user will see the same desktop, regardless of the endpoint device used for access—the desktop and available applications will remain consistent, regardless of the endpoint device.” This “liberated desktop” zeitgeist is a wonderful vision, according to Sloan, but he says current products don’t yet deliver on the promise. Yet Pano’s Orady counters that some vendors already offer complete virtual

Orady calls a “zero client”—essentially a networked concentrator that connects local peripherals with a server-based VM. Zero-client architectures provide the performance and user experience of a PC by tightly integrating a small, simple access device, a custom communication protocol for routing video and peripheral signals, with their virtualization software.

Planning, Deployment & ROI

As might be expected, analysts and vendors disagree about VDI’s enterprise readiness. Wolf sees the market as in flux and still immature and recommends waiting until mid-2010 before widely adopting VDI. Sloan agrees, not expecting

Two VDI Architectures

There are two primary architectures for deploying VDI: server-hosted and client-hosted. The server-hosted virtual desktop is often the architecture that first comes to mind when IT people describe VDI. Most of desktop virtualization’s benefits (such as

centralized containment and security, desktop mobility, and reduced support costs) are realized through server-hosted virtual desktop deployments.

The client-hosted virtual desktop is the oldest x86

client virtualization architecture today, allowing VMs to run locally on user endpoint systems. There are three client-hosted virtual desktop architectures today: hosted Type II hypervisor, PVMs (process VMs), and bare metal Type I hypervisor.

Cyber Security Groups Form Chain Of Trust

In an effort to make the Internet safer and more secure, three cybersecurity groups have banded together to create an alliance called the Chain of Trust. The three groups—the Anti-Spyware Coalition, the National Cyber Security Alliance, and StopBadware.org—will together attempt to unite security vendors, researchers, government agencies, education groups, and others in a front against malicious software. “These groups individually have played an important role in fighting malware’s growing threat; however, we can be much more effective working together as a collaborative, information-sharing team than separate players,” says Ari Schwartz, coordinator for the Anti-Spyware Coalition and vice president of the Center for Democracy and Technology. “Collaboration, organization, and transparency among the individuals and organizations who play a role in Internet security is at the heart of the Chain of Trust and the fight against malware,” Schwartz says.

As its first order of business, the Chain of Trust plans to chart the organizations and people currently working on cybersecurity and work to develop solutions to security issues. “In the short term, we want to begin to instill a culture of better communication across groups and get people out of their isolated spheres to work together on fighting malware,” says Maxim Weinstein, manager of StopBadware.org. Weinstein adds that over the next six months, the Chain of Trust will develop a research paper that outlines the project and offers suggestions on how to strengthen the Chain of Trust initiative.



According to Weinstein, the Chain of Trust will be most effective in bridging the communication between the many parties backing an independently operated Web site, such as the hosting company, Web master, detection organizations, and security experts. With better communication about a site’s vulnerabilities, all parties involved can better prevent malware perpetrators and perform site cleanups more quickly.

And when it comes to small and midsized enterprises, Michael Kaiser, the executive director for the National Cyber Security Alliance, notes that the security priorities are the same as larger enterprises, as is the need to protect intellectual property and employee and consumer data. “The needs of smaller organizations will be reflected in the Chain of Trust. It will provide easy access to identify tools and resources to help our nation’s small-business owners—a vital part of our economy—strengthen their cybersecurity, and make their link in the chain as strong as possible,” Kaiser says.

by Kristina Glaser

Microsoft Files Suit Against Three In Click Fraud Scam

Microsoft has sued three individuals in Canada for promoting a large-scale click fraud scheme. Eric Lam, Gordon Lam, and Melanie Suen of Vancouver, British Columbia, are charged with a competitor click-fraud campaign that depletes online competitor ad revenue when someone clicks the pay-per-click ads. The scam involved the illegal sale of World of Warcraft currency and also targeted online advertisers selling auto insurance. Microsoft is asking for \$750,000 in damages; the company has reimbursed its advertisers for \$1.5 million because of the defendants' actions.

Study: Renewable Energy Sources On The Rise

A new study from NRC (The National Research Council) has found that, using current technology, 10% of the U.S. electricity supply could come from renewable energy sources, including wind, solar, geothermal, wave, tidal, and biomass, by 2020. Currently, those energy sources account for only 2.5% of U.S. electricity. To achieve 20% renewable energy by 2035, we need sustained policies and investment, according to NRC. To breach the 50% mark after 2035 would require significant changes to the current power-generating industry and new scientific advances and discoveries. So what's holding us back? According to the report, cost, policy, and insufficient transmission lines are the biggest obstacles. The report comes out as the House and Senate debate bills that will mandate more renewable energy use and cap greenhouse gas emissions.



iSuppli: Moore's Law Dead In 2014

According to iSuppli, Moore's Law may go the way of the dodo by 2014. The research firm suggests that the high cost of manufacturing ever-smaller integrated circuits is unsustainable. According to Moore's Law, postulated by Intel co-founder Gordon Moore, transistors shrink at such a rate that every two years, densities double. For more than 40 years, Moore's law has been accurate. But iSuppli thinks that by 2014, "The usable limit for semiconductor process technology will be reached when chip process geometries shrink to be smaller than 20nm (nanometers), to 18nm nodes." At that point, manufacturing equipment will become too expensive to become economically viable once volumes increase. Intel's current process is at 32nm, and TSMC's current capabilities allow it to produce 40nm chips. But not everyone is convinced that Moore's Law is doomed. IBM and Globalfoundries are currently working on scaling semiconductor components to 22nm and beyond.



Do You Know Where Your Data Is?

Getting Serious About Access Management

by Chris A. MacKinnon

WHEN EMPLOYEES LEAVE A JOB, none should have access to proprietary data and organizational information. However, according to a survey by Cloakware (www.cloakware.com), 14% of former company employees still have access to such information. The question is: What do data center and IT managers at SMEs need to be doing to make sure they have access management under control? This is of special concern because layoffs and job cuts are happening at an alarming pace over the past few months.

Access Reasons

Rob Grapes, chief technologist at Cloakware, says there are many reasons former employees still have access to company data and information after they've left. Grapes comments, "It may be that they actually took the data with them before leaving the organization, perhaps on disk or USB token. Sometimes employees—especially administrative employees—have had remote access to their employer's networks to perform administrative tasks after hours, and these mechanisms were not disabled with their departure from the organization."

Chris Wraight, senior director of security management at CA (www.ca.com), says another reason is due to a lack of data-use controls across the enterprise. "Without these controls," Wraight says, "employees will be able to misuse data. Misuse takes many forms, including saving files to portable media, emailing or transporting data, and more. In addition, organizations need to consider that a user's access to data should change depending on their identity."

Kurt Johnson, vice president of corporate development at Courion (www.courion.com), says many companies lack insight into which applications and systems each employee has access to. He notes, "Companies don't revoke access to particular systems because they aren't even aware that an employee had access in the first place. In fact, a recent survey conducted by Courion indicates that 53% of large enterprises have limited or no knowledge of which systems or applications their employees have access to."

Special Issues For The Mobile Workforce

"Telecommuters or mobile workers are likely the future of the workforce but are also a huge pain for IT managers," says David Ting, co-founder and CTO of Imprivata (www.imprivata.com). "These workers need to be able to access company systems and data as needed on their terms. There is little that can be done about the mixing of company work on personal devices—even if work is done on a company-owned device, the network it's done on is still the employee's."

Ting says the technology you use to manage system access must also have built-in controls to authenticate mobile workers. Ting says that while building in fraud preventions, there have to be flags that go up to warn IT managers so any intruders can be shut down before gaining access.

Be Concerned

David Ting, co-founder and CTO of Imprivata (www.imprivata.com), says with the current state of the economy, layoffs are more frequent, often spanning different areas of the company affecting users with many different access privileges. "Deprovisioning access for multiple employees to multiple data sources is a significant effort if an efficient employee access management system is not in place," says Ting.

Ting says even the threat of future layoffs in this increasingly competitive job market has the potential to drive unethical people to steal company-owned data that may be useful to them in the future or make them a more attractive hire to a new employer. "Without proper access management controls in place," Ting says, "there is no deterrent to prevent terminated employees and contractors from helping themselves to corporate assets on their way out the door."

Grapes says, "Most former employees are 'good' by nature, but it has been proven that with minimal controls and a sense of impunity, even good employees will do bad things." Grapes notes that if companies have adequate security standards and practices in place, they can deter at least two-thirds of the insider attacks from good-natured people compelled to do bad things due to circumstance alone.

Take Action

According to Johnson, the first step to getting access management under control is to implement a comprehensive IAM (identity and access management) strategy that includes automated provisioning and deprovisioning of employee access. "Ultimately, an integrated IAM solution should be able to define policy, apply policy by enabling specific access rights, moni-

“Without proper access management controls in place, there is no deterrent to prevent terminated employees and contractors from helping themselves to corporate assets on their way out the door.”

- Imprivata's David Ting

tor and detect user activity, remediate access rights or policy, and validate that user access rights are consistent with policy," he says.

Johnson says organizations should utilize such solutions to ensure that only the right people have access to the right resources and are doing the right things. He adds, "Aside from the obvious security benefits derived from having visibility into and control over access rights, there are numerous ancillary business benefits, such as improved operational efficiencies, increased employee productivity, and improved compliance reporting, that can also result."

In Wraight's opinion, putting a strategy in place for integrated identity and access management is key. "Ensure that it considers provisioning and deprovisioning users, but it also needs the server resource protection aided by access control," he says. "The strategy should consider an initiative to protect servers in a cross-platform environment. This protection should encompass

server access as well as privileged users, in addition to devices and applications." Wraight says the strategy should also ensure that it delivers centralized technologies and reporting tools to facilitate audits and prove compliance.

Knowledge & Timing

Ting says there are two things IT managers need to control access and prevent data breaches: knowledge and timing. "IT managers need to know how each employee is accessing the company's network," he says. "Setting policy isn't enough; with today's tech-savvy workforce, IT managers need to be able to have controls in place that protect their data and show exactly when, where, and how employees are using it." Ting says this way, there are no surprises when you discover a rogue personal device or hotspot that has been exposing your network.

Ting says timing is also just as important. "While technology-based solutions for

access management make it much easier to understand and connect the physical and logical identities of an employee—enabling both to be shut off at the same time—IT managers need to, at the very least, have a policy in place that directs staff to shut off building and IT access at the same time," Ting says. He says automating this process with employee access technology will make it a one-step process, ensuring that access is eliminated at the same time.

The most difficult part of managing and mitigating insider threats, according to Grapes, is maintaining a balance that enables individual access to this data as part of the job, yet secures and monitors use of these critical resources. Grapes concludes, "Companies need to intensively monitor and manage access to critical information assets in all facets of the organization with proactive warning systems to circumvent critical incidents and limit exposure to agency credentials and vital information. These companies must remember that even trusted insiders need to be scrutinized." [2]

Key Points

- Companies don't revoke access to particular systems because they aren't even aware that an employee had access in the first place.
- The threat of future layoffs in this increasingly competitive job market has the potential to drive unethical people to steal company-owned data that may be useful to them in the future or make them a more attractive hire to a new employer.
- The most difficult part of managing and mitigating insider threats is maintaining a balance that enables individual access to this data as part of the job yet secures and monitors use of these critical resources.

Backup Heads For The Clouds

Regulatory Compliance, Outdated Tape Systems Drive SMEs To Internet Backup

by Curt Harler

WHEN IT COMES TO BACKUP SERVICES, many SMEs have their heads in the clouds—Internet clouds, that is. They are cutting the tapes that traditionally have served them well as physical backups and outsourcing the job to specialized firms. A study by Connect Support Services (www.connect.co.uk) shows that half of IT directors surveyed plan to switch from backup tapes to online backup within the next three years.

Ever-expanding regulatory compliance requirements are driving the move to cloud backup. However, there are other factors—such as the challenge of internal management and finding lost files—that push SMEs to cloud backup. Plus, some SMEs find their current tape systems becoming gluttoned or outdated.

“We absolutely see the trends the study points out,” says Jeff Cato, vice president of marketing at CoreVault (www.corevault.com), a service provider that delivers cloud backup.

Steve Rodin, president of Storagepipe (www.storagepipe.com), agrees. Rodin says that the enterprise is moving away from tape backup and its inherent manual processes. He says rapid growth and availability of bandwidth and the dropping prices of digital storage are driving this trend.

Benefits Of Cloud Backup

“Everyone’s data is growing exponentially as companies go paperless and add images and drawings,” Cato says. “It’s almost impossible to keep up on the changing, expanding regulations with a tape backup system.” He adds that while every company has sensitive data, with HIPAA and Sarbox, it is vital that companies be able to diminish their liability.

“Cloud backup is not sexy,” says Eran Farajun, executive vice president of Toronto-based Asigra (www.asigra.com). “But if you are looking for cost containment, this is a good place to start. It will transform the way you do backup, make it more efficient, and allow IT to focus on core strategic objectives.

“People spend too many cycles—too much time and brainpower—on what should be a mundane task. Backup will not make your company more valuable, but without it, you will be slowed down,” he adds. Farajun says SMEs can look for 25 to 45% cost savings by moving to the cloud.

“If you don’t have a built-in regimen to back up and encrypt data, you need help,” Cato says. “Cloud backup decreases your company’s risk and liability.”

The potential buyer of backup services should view this transition as an opportunity to remove the complexity with respect to backing up their own data by outsourcing it to the experts, Rodin says. SMEs frequently find the value-add from cloud backup comes more from the advice and order a cloud provider offers than from simple availability of lost data.

Be sure your vendor has expertise working in your industry and with operations your size. Some specialize in home and very small businesses. Others specialize in mid-sized firms, health care, or human resources.

Choosing A Provider

In the SME space, cloud backup is all about trust. “There is a comfort level with having a backup tape on premises or nearby,” Cato says.

Cato warns that an SME must know its provider before committing to service. “Anyone can put up a great Web site and sell service,” he says, but an SME should

“People spend too many cycles—too much time and brainpower—on what should be a mundane task. Backup will not make your company more valuable, but without it you will be slowed down.”

- Asigra’s Eran Farajun

look at how the vendor secures data. Find out whether it owns its facilities and the fiber lines between its redundant sites where all data is replicated. Also check that it has secondary sites at least 100 miles apart. Ask to see the vendor’s own disaster recovery plan; determine how often it does failover testing; and look for stamps of approval from professional associations, including legal, medical, and industry groups.

Farajun recommends a vendor with the SAS 70 certification seal from the American Institute of Certified Public Accountants (www.sas70.com). It looks like a highway sign and gives assurance

is not backed up six times. The latter allows SMEs to filter out employee MP3 files and other storage hogs.

This is an important consideration because most vendors charge a monthly fee for backup based on the amount of data stored. Reducing the amount stored saves money every month. Jeff Cato, vice president of marketing at CoreVault (www.corevault.com), says he has seen cases where deduplication and filtering have cut storage requirements by half.

Key Points

- Regulatory compliance is the single largest driver of the move to cloud backup.
- Look for scalability with a backup partner who will grow as needs evolve.
- Be sure there is an exit strategy because you might decide to switch vendors.

that a service provider has passed an in-depth audit of its IT control processes.

“Practice prudence,” Rodin says. “Ensure your storage partner’s references are excellent. Make sure they have been around for several years and are expanding in line with the rest of the industry.”

Rodin suggests an SME look for scalability—a backup partner who will grow as needs evolve. “Ensure they can support servers and databases as well as email,” he says.

Customer service is a major issue. Cato says an in-house, U.S.-based customer service department is best. All of this should be on any proposal request, even an informal one. “Before you buy, be sure you know what you are looking for and compare apples to apples,” he says.

Rodin recommends looking for a company that does cost-effective data archiv-

U.S. DoE Falls Short On Energy Efficiency

According to an inspector general’s report on the efficiency levels of seven Department of Energy facilities, the department spent \$1.6 million more than necessary on energy in fiscal year 2008. The inspector general indicates that, ironically, the department could save millions of dollars in the next five years just by following a few steps the department recommends to citizens, such as turning off monitors when they are



not in use or implementing hibernation and standby modes on idle systems. Additionally, the report suggests making use of shared servers and thin clients for unclassified work and better energy monitoring and management.

Shrinking Venture Capital Industry May Be For The Better

According to some industry analysts, the current shrinking trend in the venture capital industry may actually be a boon to venture capitalists in the long run, as those who survive will be able to see better financial returns with less competition. The number of venture capital firms has been decreasing in the current economic climate, with some experts putting the rate at 10% per year; others expect the decline to continue over the next five years. Most view the decrease as creating a “survival of the fittest” scenario, however, and see the industry emerging from the recession stronger and leaner.

Microsoft Loses Web Server Market Share

A recent analysis by Netcraft shows that the number of active Microsoft IIS (Internet Information Services) Web sites dropped sharply in the past few months, with a 7.6% fall in the May-to-June time frame alone. Netcraft says that the freefall to about 28% of active sites reflects a slowdown in Microsoft Live Spaces site activity. Apache



continues to dominate with a market share of about 50% of active sites, with a rising threat from Google at 12.2% (up 3.2% from May to June).

Server Sales Continue To Decline

IDC has lowered its forecast for second-quarter server sales, although the research firm believes that the worst of the economic contraction has already happened. The company’s most recent Worldwide Quarterly Server Forecast sees global server sales dropping 29.6% sequentially to \$10.6 billion. That’s about a \$1 billion (8.5%) revision downward from IDC’s previous estimate. The firm now predicts that total server spending for the calendar year will be down 22.1% year-over-year, while the number of units sold will show an 18.3% decline.

Making The Switch

The changeover from tape to online backup is not cumbersome. Most vendors walk a new customer through the required backup sets.

The first step is to identify which files are critical to the business. They should be targeted first for cloud backup.

Some SMEs may be surprised at how little cloud backup space they require because most vendors offer deduplication and filtering services. The former assures that the same document, stored on six different computers,

Online Advertising Takes Hit In First Quarter

Spending on the Internet is down, with first-quarter figures for this year showing a 5% drop compared to the same quarter last year. U.S. advertising spending for the fourth quarter of last year was \$6.1 billion; spending for this year's first quarter was at \$5.5 billion. These figures are from a joint report by PricewaterhouseCoopers and the Interactive Advertising Bureau. According to the report, interactive online advertising has gained prominence in marketing plans, so it's not immune to broader economic trends. The Interactive Advertising Bureau expects growth to resume as the economy improves.



Study: Global IP Traffic To Grow 40% Annually

Global IP traffic will exceed 667 exabytes by 2013 while growing at a compound rate of 40% annually, according to the latest Cisco Visual Networking Index study. In four years, North America's IP traffic will reach 13 exabytes per month, while Western Europe will remain slightly behind at 12.5 exabytes. Internet video accounts for one-third of Internet traffic and, by 2013, all television, video on demand, Internet, and P2P video will represent 91% of consumer traffic. Globally, mobile traffic is expected to double every year through 2013, with more than 60% of data traffic moving to video. Overall, consumer "hyperconnectivity" will add as many as 12 hours to the "digital day."

Bing Edges Into Search Engine Market Share

Microsoft's Bing didn't take long to break into the top market share. According to StatCounter results from the two weeks before and after Bing was formally launched, Google and Yahoo! saw a drop of nearly 1%. Microsoft's search engine options, which include Bing, MSN Search, and Live Search, increased from 7.4% to 9%. Aodhan Cullen, CEO of StatCounter, says, "It remains to be seen what happens to Bing after user curiosity and the reported \$100 million advertising budget runs out." Bing is the update to Microsoft's Live Search, and Bing comes with a number of related services.



IBM Invests In Mobile Phone Research

Technology giant IBM has long been a pioneer in personal computing, and now the company is unveiling a \$100 million investment pool for new mobile phone services. While IBM has been mum on details, the company says it intends to work for better mobile payment methods, security, privacy, and user interfaces. Additionally, it will look to produce a better way for mobile devices to interact with customers and employees.

Mobile Device Management

Take Charge Of Monitoring, Updates & Security

by Robyn Weisman
• • •

IN THE PAST COUPLE OF YEARS, smart mobile devices have improved the productivity of many organizations. From push email to complex applications, today's smartphones let users chuck their notebooks for all but the most data-intensive tasks. Many of today's handheld devices pack more processing power than high-end notebooks did at the start of the decade.

But mobile devices can give the most seasoned IT professional something to worry about. If you're lucky, you're running an all-Windows Mobile or Research In Motion shop (and if you're really lucky, none of your senior executives are insisting on having an iPhone). But even if you only have to manage a single platform, you still have to manage the ways in which your employees use these devices, how you go about updating devices, how you monitor phone usage, and how to keep these devices and the data housed in them secure, among many other issues.

You may have an advanced MDM (mobile device management) solution in place or at least tools that would make up such a solution. Perhaps you don't. Regardless, MDM, as with any other IT initiative, cannot be solved just by having the right technologies. The strategies you put in place will determine your success in managing your mobile devices across your network—and if you're especially adept, it may mean an iPhone for yourself in the future. Here are a few things to keep in mind when mapping out your plan of action.

Get A Clear Picture

The first thing you want to do when mapping out an MDM strategy is to get a clear picture of your mobile device landscape. Such a picture would include the number and types of mobile devices you have, the hardware health of these devices, and the software installed on each device, explains Mark Gentile, CEO of Windows Mobile MDM

solutions provider Odyssey Software (www.odysseysoftware.com).

"Even if a company purchased and deployed 1,000 devices with the exact same cookie-cutter image, applications get installed either by IT or by the user installing games or recipe keepers if the device is also used for personal use," says Gentile. "Drift is normal, but when you're talking about corporate settings and policies, that's drift you want to avoid."

Once you have a clear picture of each device on your network, you can manage the devices more granularly. If your mobile CRM application vendor comes out with a new version of its software, it makes sense to update the devices of just your sales staff, says Gentile. Similarly, you probably want to remotely perform updates on mobile devices at night, rather than during the middle of business hours—and midnight in Santa Clara, Calif., is 9 a.m. in Frankfurt, Gentile notes.

A Good Phone Plan

Your mobile device assets aren't just the physical devices on your network or your middleware server. The phone plan and the phone numbers that go with your devices are assets, too, and must be proactively managed if you truly want to maximize your cost savings, says Custie Crampton, vice president of MDM technology at telecommunications lifecycle solutions provider Tangoe (www.tangoe.com).

For example, a great domestic mobile phone plan does not prevent being accountable for roaming costs when one of your employees travels overseas, goes over his monthly SMS limits, or simply uses more voice minutes than what is allotted to her. A tool that alerts you to these types of activities as they are happening will let you act on these situations and reduce costs before they get out of hand, Crampton says.

Meanwhile, you need to determine how to bill or reimburse your employees for calls and messages made on their devices, says Gerry Purdy, vice president and chief analyst at research firm Frost & Sullivan.

Key Points

- Make sure you have a clear understanding of all of the mobile devices that are part of your SME's network.
- A tool that can monitor your employees' mobile device activities in real time can help prevent being surprised by roaming, overages, or other unforeseen costs that your carrier plan does not cover.
- You will need to figure out a policy that protects your enterprise while not encroaching unreasonably on your employees' privacy. The divide between work and personal becomes especially blurred in the mobile device space.

"If you impose a policy to only reimburse for business use, how are you going to discriminate between which calls were which? Some are both," Purdy says. "And if you're going to prorate the 18 cents on the [personal] call, then you've created so much overhead that you're wasting people's productivity," he says.

Balancing Personal & Organizational Needs

Mobile device management's biggest issue may be figuring out the balance between personal and organizational needs. For example, you may have instituted a policy that precludes employees from storing music on their mobile devices. However, some of your employees might want to listen to music or an audio book on the way home from work, while others get their best work done while listening to music. "These new wireless handsets are lifestyle [devices], and they go in and out of the different things you do in your life [because they're] what you carry around all day," says Purdy.

Of course, you need to protect your devices and the company data that lives on them. So for example, you might prohibit users from downloading applications that leave these devices vulnerable to hacking. However, wider flexibility and more variances of control of mobile devices will be necessary going forward, says Purdy. "In other words, 'We'll manage this part of the device but not that part.'"

For Purdy's part, the challenge of negotiating between business requirements and personal preferences is creating a new era of policy development. "There's very little case log because we've not had these things long enough where people could challenge them in court," Purdy says. "You have the issue of people feeling they have the right to some privacy and not be invaded by the enterprise unfairly." ■

Know Your Mobile Device Landscape

Before implementing or altering your mobile device management solution, make sure you have a clear picture of your mobile device landscape. This way you can put forth a solution that is simpler yet more granular to administer.



THREE QUESTIONS

XRoads Networks Helps SMEs Control Bandwidth

Keep Circuit Costs Down By Utilizing Unified Bandwidth Management

by Joseph Pasquini

FOUNDED IN 2001, XRoads Networks is a leading developer of network appliances designed to leverage a load-balancing technology commonly referred to as unified bandwidth management, or UBM. Since its inception, the Irvine, Calif.,-based XRoads

has deployed its appliances to a number of Fortune 500 companies and thousands of SMEs around the world.

Daren French, vice president of business development at XRoads (www.xroadsnetworks.com), has been with XRoads since

the beginning. He has a career in the industry spanning more than 18 years.

■ **What are the biggest IT-related issues facing today's small to midsized enterprise?**

“One of the biggest issues facing many IT departments is how to cut costs and improve performance of their networks,” says French. “In a slowing economy, the one thing you can’t afford is network downtime. Faster and reliable network connectivity is critical in today’s environment.”

According to French, some SMEs have found a new way to alleviate recurring—and often soaring—connectivity costs. “A

new method which many organizations are starting to look at is to utilize two (or more) inexpensive broadband connections instead of a single T1/Frame link,” says French. “The reality is that having two broadband connections vs. a single T1/Frame connection delivers more bandwidth, lowers overall cost, and significantly increases reliability. Two average broadband links deliver 1-1/2 times the bandwidth of a T1 link at a lower cost, with similar packet loss and latency as found on the average T1 connection.”

French offers some words of supportive wisdom for SMEs contemplating multiple broadband links: “When considering whether to implement a network reliability solution, it is important to realize how such a decision could affect the company and those responsible for its network.”

■ **What should Processor readers know about your company's products?**

XRoads’ EdgeXOS appliance lineup offers SME and corporate users alike an opportunity to combine multiple WAN links. “The EdgeXOS platform helps administrators maintain confidence in the reliability of their network through its unique Vector Routing technology, which is easily able to connect two or more broadband connections from multiple service providers without any complex networking protocols like BGP,” French says.

“The EdgeXOS platform helps to provide reliable bandwidth management through its built-in network redundancy and the ability to lower costs through broadband load balancing,” adds French. “Every feature built into the EdgeXOS platform is designed for this purpose.”

According to French, EdgeXOS customers can also utilize the appliance’s built-in traffic shaping and bandwidth management capabilities. “Network administrators can improve end-user responsiveness through application prioritization and by throttling heavy network users,” he says. “All of these capabilities are included in each of the EdgeXOS appliances.”

French adds, “Network administrators can also obtain a greater understanding of their network through the EdgeXOS’ reporting capabilities, which provide detailed reporting as to whom and what is utilizing the bandwidth. Our Top 10 graphs show who the heavy users are and which applications are taking the most network resources.”

■ **What makes your company unique?**

“XRoads Networks is the leading developer of network optimization appliances utilizing unified bandwidth management (UBM) technology,” remarks French. “Our bandwidth management solutions provide a secure environment for network traffic shaping, multi-WAN network load balancing, and VPN tunnel balancing.”

“XRoads Networks has a long track record of delivering reliable bandwidth management solutions for Fortune 500 companies and educational institutions as well as small to midsized businesses,” adds French.

He continues, “When attempting to determine whether the costs justify the deployment of a multi-WAN solution, one must consider that an XRoads Networks solution can not only substantially lower operational costs, but also significantly improve overall productivity through increased performance.”



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BOOK REVIEW

Three Laws

Book Offers Useful Approaches To Help Identify Growth-Inhibitors

by Kurt Marko

SELF-HELP BOOKS have been a staple of career-minded businesspeople since Dale Carnegie published his classic, “How to Win Friends and Influence People,” in the 1930s. One recent title exploring the nexus of individual achievement and corporate transformation is “The Three Laws of Performance: Rewriting the Future of Your Organization and Your Life” by Steve Zaffron and Dave Logan. It’s not your everyday business management text, as it borrows heavily from concepts originated in the ’70s by Werner Erhard’s Erhard Seminars Training for self-actualization.

Unlike traditional business titles on organizational change or performance maximization, “The Three Laws of Performance” doesn’t seek to proscribe techniques or best practices but rather to outline a transformative philosophy. In the authors’ words, “This book isn’t about change management—more, better, or different. It’s about rewriting the future. The result is the transformation of a situation, leading to a dramatic elevation in performance.”

The authors proclaim the power of their ideas, describing them as “laws” every bit as pervasive, immutable, and

inescapable as Newton’s laws of motion. “The Three Laws” offers some useful approaches for identifying core issues that may be hampering personal and organizational growth.

Perception Is Reality

The authors’ first law states “How people perform correlates to how situations occur to them,” which is really just a variant of “perception is reality,” because by “occurs,” the authors mean “appears” or “seems.” Hence, their contentions that how people perceive things drives their behavior.

Law two states, “How a situation occurs arises in language,” where “language” is viewed in the broadest sense to include body language, unspoken gestures, facial expressions, and vocal intonation. As a corollary, the authors say that so-called “unsaid and communicated but without awareness” language creates interpersonal issues constraining people by what is left unspoken.

Building on this foundation, the final law, “future-based language transforms how situations occur to people,” seeks to outline how individuals or organizations can create lasting change by using visionary, so-called “future-based,” language. Stripped of its Zen-like lingo, this is essentially the same concept espoused 50 years ago by Norman Vincent Peale’s “The Power of Positive Thinking” and evocative of the creative visualization taught by many sports psychologists.

The latter sections of the book apply the three laws to organizational leadership and what the authors call self-invention. Here they describe how to create a new personal or corporate future by increasing situational awareness, wiping away hidden or suppressed issues to create a blank slate, and developing a vision of the ideal future and tackling performance issues in light of this new vision—what they term rewriting the future.

The authors conclude that individuals who apply the three laws can develop the type of leadership that can rewrite the future of their group, organization, or company. Such leaders act as catalysts

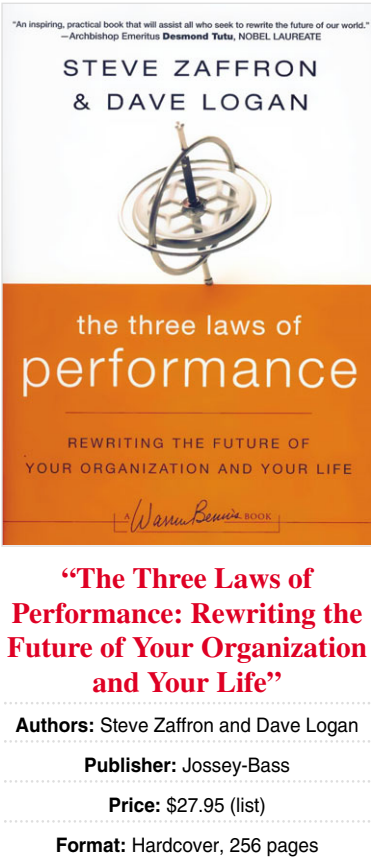
to those around them by not only expressing their own ideas but by creating an open, conversational environment and listening to others. Concluding with a common sports metaphor, the authors state that change happens when you get out of the stands, make commitments to change, and “play the game as if your life depended on it.”

Elevate Performance

The authors assert that applying their three laws can elevate individual and group performance beyond what seems possible—not gradually, but all at once. The book is full of anecdotes and case studies from organizations that have successfully, and rapidly, transformed their businesses after applying the three laws and their related corollaries. ■

KEY CONCEPTS

- ▶ “The Three Laws,” which center on empathy, communication, and visualization, can be applied to change the default path of an individual’s career or an enterprise’s strategy through a process of rewriting the future.
- ▶ For organizations, this path of envisioning and creating a new future is more than simple change management; it creates a new type of “self-led” enterprise in which employees are more empowered and engaged.
- ▶ Individuals mastering the art of rewriting the future will see their performance problems in a new, fresher light and be open to solutions and opportunities they wouldn’t otherwise have envisioned.



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OPINIONS
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Can Business Intelligence Ease Recessionary Pains?

Business intelligence vendors have been praising their BI solutions as the cure of choice for the current economic downturn. IT leaders, however, usually have a healthy amount of skepticism when it comes to such claims. But this vendor push has received some interesting support, with notable analyst firms and industry experts joining the chorus. Is investing in BI during a recession really such a good idea?

A Cure For Current Economic Woes?

On the surface, the argument for implementing a BI solution during a recession seems straightforward enough. When times are tough, enterprises need to be even more vigilant about how they manage business performance. BI solutions can deliver critical insight to inform better decisions around cost management, resource optimization, and revenue generation. Therefore, BI can solve a business' economic problems.

It is true that a well-implemented BI solution can improve business performance in a recession. Business performance analytics can give decision makers the critical information to grow profit margins with precise cuts and intelligent investments. Dashboards and scorecards allow managers to monitor business performance, enabling tactical and strategic responsiveness. Data mining techniques, such as market basket analysis, allow organizations to leverage enterprise data for more targeted sales. Forecasting tools can provide insight into the future of the market.

But consider the challenges facing a first-time BI project. There is a significant difference between organizations walking into the current recession with a well-functioning BI deployment and those considering implementing a solution in its midst.

Implementation Complexity Hampers Quick Returns

Many organizations struggle to get their BI solutions up and running. On the technology side, BI applications are notoriously complex to implement. In a recent study by Info-Tech Research Group, 60% of IT departments stated that overcoming BI complexity was a challenge to successful implementations.

Close to 65% of the same departments also cited a lack of IT resources as a significant obstacle. Given the staffing cuts that many organizations have instituted in the wake of the financial meltdown, lack of IT resources is likely to pose an even greater challenge to any proposed BI implementations.

The biggest obstacle to successful implementation was enterprise data quality. A staggering 70% of organizations found that preparing enterprise data posed a challenge to their implementations, not to mention issues around integrating BI with the existing infrastructure. The net effect of these difficulties is that close to 85% of organizations

reported taking at least six months simply to implement their BI solutions, with most of these taking a year or longer.

Changing Business Processes Takes Time

Implementation of the technology is only half the battle. The successful integration of BI requires enterprises to change their processes to adapt to data-driven decision making. This requires new approaches to the collection of data and the integration of analytics in workflows and decision making.



GARETH DOHERTY

AUTHOR Gareth Doherty is a research analyst specializing in business intelligence and data management. His published reports have addressed security- and data-related topics such as email encryption, data quality management, and master data management. Doherty's recent work focuses on advising enterprises that face technical and business process issues around business intelligence implementations.

The problem is that end users can be notoriously resistant to change. In fact, 75% of IT managers cite business process change as an impediment to successful BI uptake. And it is common knowledge that a BI solution that isn't used can't deliver business value. All of this means that BI can take even more time before enterprises begin to see a return on the investment.

To make things worse, a carefully planned purchasing process with requirements gathering and onsite demonstrations from vendors is essential to the selection of the right BI solution. Organizations that have not made headway on this front will be several months

away from beginning their implementation. The upshot of all this is that organizations looking to deploy BI right now will likely have to wait a year and a half before they start to see returns.

Not This Recession

By most estimates, the U.S. economy is expected to turn around by the end of Q2 2010, with other economies soon to follow. U.S. Federal Reserve Chairman Ben Bernanke recently claimed that recovery could come as early as the fourth quarter. Given the time frames for the successful deployment of a BI solution, the current recession is likely to be over before organizations see any benefits from a proposed BI deployment.

The good news is that there are BI-related activities that enterprises can pursue now. For example, analyzing help desk data to find underutilized applications and hardware for

cost cutting is a great place to start. In fact, integrating good data collection and analytical habits into business processes will pave the way for a successful BI implementation.

The benefits of business intelligence are real and substantial when the project is managed effectively, and for organizations that have the time, money, and a vision for how BI will help their operations, there is no reason to wait. However, if the goal of a BI project is to cure recessionary woes, aim for the next recession, not this one. ■

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Power Is The Name Of The Game

Server Technology Offers An Array Of Power Distribution Solutions For SMEs

by Holly Dolezalek
• • •

MANY SUCCESSFUL COMPANIES adhere to the motto, “Find something you’re good at and stick with it.” Server Technology in Reno, Nev., has found that it’s good at power, and it’s sticking with that.

Since 1984, Server Technology (800/835-1515; www.servertech.com) has been bringing products for cabinet power distribution to the market. Most of the company’s employees are at its Reno

Basic family includes units that provide simple power distribution for equipment cabinets and applications as well as branch circuit management for 20- or 30-amp devices. These units can distribute 120, 208, or 230 volts. The CB-12H has space for 12 NEMA or IEC 60320 outlets, while the CB-24V has space for 24.

The Metered family distributes power but also monitors local current, including aggregate load verification per circuit, so that users can avoid overloading the circuit

The -48VDC family of products provides power for routers, switches, and servers. The company also offers a fail-safe transfer switch for power redundancy and a per-outlet power sensing, or POPS, unit. The POPS unit can do everything a Switched unit can and provides power monitoring information for each individual outlet or device, including power, current, and voltage.

The company has also been revamping its power management software to meet the needs of the data center. Sentry Power Manager tracks a company’s PDUs, including capabilities for capacity planning, environmental monitoring, reporting on power trends, and efficiency measurement.

A Recipe For Success

Nicholson says that Server Technology has succeeded over the years by sticking close to its core competency: power. “We have over 20 years of expertise in this market, and we’ve stayed on top of the features and functions that customers want,” he says. “We have what we think is the biggest engineering group in the industry [Server Technology has more than 30 full-time engineers], so we’ve made big investments in staying on top of the market.”

The company has been growing, especially overseas, and Nicholson says that the growth has posed a challenge to the company to maintain the environment and culture that has served it well. “It’s been difficult to support all that international business, and meanwhile, the marketplace is getting ever more competitive with new companies coming in all the time,” Nicholson says.

But Server Technology has no plans to depart from the focus that has kept it successful. “We’re constantly releasing new products, and we’re going to continue advancing the technology and offerings

Server Technology
(800) 835-1515
www.servertech.com

- Server Technology specializes in power management offerings designed to help SMEs get the most out of their power infrastructures in times of rising energy costs and environmental concerns.
- The company’s Sentry families of power distribution units go beyond power distribution with such capabilities as environmental monitoring and email alerts.
- “We’ve got over 20 years of expertise in this market, and we’ve stayed on top of the features and functions that customers want,” says Calvin Nicholson, director of product marketing.

that we’re already doing well in,” Nicholson says. “We’re not going to branch out into other areas.”

Server Technology’s salespeople conduct direct sales of its products through its offices in the United States and abroad, but a network of channel partners sells Sentry units all over the world. The company sells more products through its channel partners than in direct sales, although it used to be the other way around.

Nicholson says the company doesn’t focus on any vertical market because companies in all verticals need power distribution. But he says Server Technology has done well in the financial segment, possibly because of the increased need for security in that market. Server Technology also doesn’t focus on any particular size of company. “We have over 1,000 SKUs, and what companies buy depends on what they’re trying to accomplish,” he says. “The smaller companies tend to have lower densities, so they need models for lower power and current, but we find we’ve got something for just about everybody.”

In The Works

The company is researching a way to offer a monitoring solution that will upgrade an existing POPS unit. “If that PDU doesn’t have metering or intelligence built in, this solution will monitor the PDU and gather some information, such as current load or environmental monitoring,” Nicholson says. “The tool will be a way to upgrade a cabinet without replacing the PDU, so it will be an inexpensive way for a company to get some monitoring and metering that they don’t currently have.”

The company will also begin offering a complete service organization in the next few months. It has always offered phone support for its products, but the service organization will provide such onsite services as power audits, installations, and fault-tolerant testing.

Nicholson thinks there will be a solid market for services such as these and the Sentry products, especially as power management becomes more of a priority. The desire to go green has converged with the desire to save money, and Nicholson notes that even as the cost of power has been going up, the availability is going down in some areas. For example, some of Server Technology’s customers in San Francisco have facilities that can’t get any more power than they’re currently getting. That makes power management all the more desirable.

“You can see that the amount of power being used and the growth of data centers are unsustainable,” Nicholson says. “Steps are going to have to be taken, and financially it just makes sense to know where and how power is being used.”



headquarters, except for its sales and support teams located in their regional and global locations.

Server Technology is best known for its Sentry line of power distribution units and switches. But the company has recently reached into the power market in a different way: the Sentry Power Manager software, which allows users to track and monitor all of their PDUs with a single interface.

when installing new equipment in a cabinet. Some units in the Metered family are wired for three-phase load balancing for power distribution. The family includes 15 models, many of which are rack-mountable, with varying numbers of available outlets (up to 48).

The company’s Smart family of PDUs combines the capabilities of the Basic and Metered families with the ability to monitor



Sentry Power Manager

“We’ve offered a product like this before, but Sentry Power Manager has been revamped for the data center,” says Calvin Nicholson, director of product marketing for Server Technology. “It’s expanding our presence in software as well as hardware, and we’re becoming both a hardware and a systems company.”

Power Distribution Solutions

The Sentry line of power distribution units includes several product families. The

environmental conditions and initiate remote rebooting. The Web-based GUI for these products allows users to turn outlets on and off, monitor conditions, and set conditions for email or SNMP alerts. Products in this line vary by voltage (up to 400 volts in three-phase), capacity (up to 60 amps), and number of outlets (up to 84). The Switched family includes all of these capabilities and other features such as smart load shedding, sequenced power, and outlet grouping.

A Look At Some Of Server Technology’s Offerings	
Product	Description
CS-12HD	This PDU has dual-input power distribution, 12 outlets, and provides power distribution and power and environmental monitoring.
CWG-16V	This PDU has 16 outlets and can monitor current load, voltage, power, apparent power, crest factor, and power factor per outlet or device.
CW-24V	This PDU is a switched cabinet PDU with 24 outlets and support for 20- or 30-amp power input and 208V, 240V, or 230V configuration.
Sentry Power Manager	The SPM is a Web-based CDU interface that can track and control all networked PDUs. It can monitor power draw, environmental conditions, power efficiency, and other variables.



CW-24V PDU

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Founded in 2000 and headquartered in Toronto, Canada, up.time software specializes in efficient and cost-effective systems management software for the small to mid-sized enterprise markets. up.time’s solutions include monitoring for servers, VMware, and applications. up.time’s goal is to help organizations eliminate unnecessary IT outages, increase service availability, and reduce the cost of systems management.

Products Sold:

Server and virtual monitoring and management, application monitoring, capacity planning, server consolidation, multi-data center management

(866) 735-4304 | www.uptimesoftware.com

SECURITY



Established in 2000, Astaro provides solutions that simplify network environments for small and medium-sized enterprises. Combining open source and commercial security products, the Astaro portfolio includes secure applications for deployment as software, hardware, or as a virtual appliance. Astaro is trusted by more than 10,000 IT administrators and distributes products to 2,500 resellers in more than 60 countries.

Products Sold:

Unified threat management, mail security, Web security, centralized management, data collection and reporting, online risk assessment for PCI compliance

(978) 974-2600 | www.astaro.com

SECURITY



LogLogic provides enterprises with management solutions for IT logging, security, and compliance. Its open log management platform offers companies a bird’s-eye view of events that affect their business, including transaction and security event data cross-linked to user activity before and after. Add in LogLogic’s regulatory compliance management solutions, and it’s easy to see how the company can help any organization increase accountability and avoid expensive problems.

Products Sold:

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(408) 215-5900 | www.loglogic.com

SECURITY



Established in 1996, SECUDE develops SAP security solutions with advanced technological skill in order to protect enterprise infrastructures against network threats. SECUDE solutions address identity and access management, cost reduction through SSO, remote access, security assessments, and vulnerability management.

Products Sold:

SAP customers will benefit from the following products:

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SAP Secure Doc

SAP NetWeaver Security

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SECURITY



The growing use of encryption, including mandatory regulations requiring specific types and classes of data, has created new and complex challenges to manage how you protect vital information and critical systems. Venafi offers multiple management systems that give you control over your encryption and authentication systems. Venafi's platforms can run on client devices, front- and back-end servers, and many types of middleware systems as well as over your network.

Products Sold:

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STORAGE



Based in Scottsdale, Ariz., DataPreserve provides highly secure online backup and storage solutions for small and midsized enterprises. By partnering with IT service providers, DataPreserve offers enterprise-level solutions that meet their clients' needs for ease of use and affordability. Since 2005, DataPreserve has saved countless organizations from critical data loss through its online backup and storage solutions.

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STORAGE



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CLIENTS



Maryland-based dtSearch started research and development in text retrieval in 1988. The company is known for speedy adoption of new programming standards, OSes, and file types. Plus, it has a flexible licensing model. Typical corporate use of dtSearch includes general information retrieval, Internet and intranet site searching, and email archiving and email filtering.

Products Sold:

Text retrieval products, including:

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- Network With Spider
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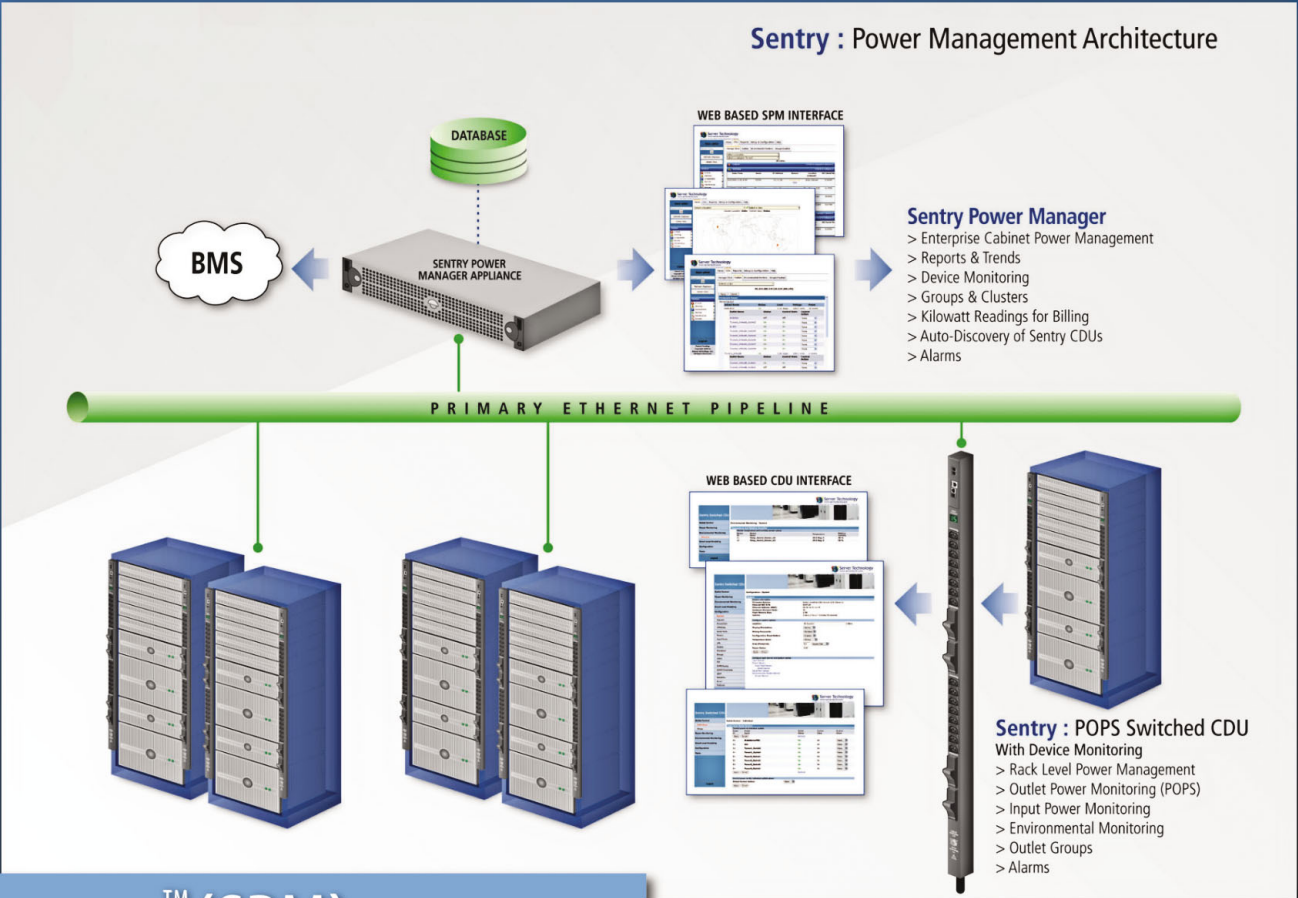
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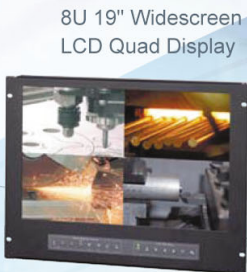
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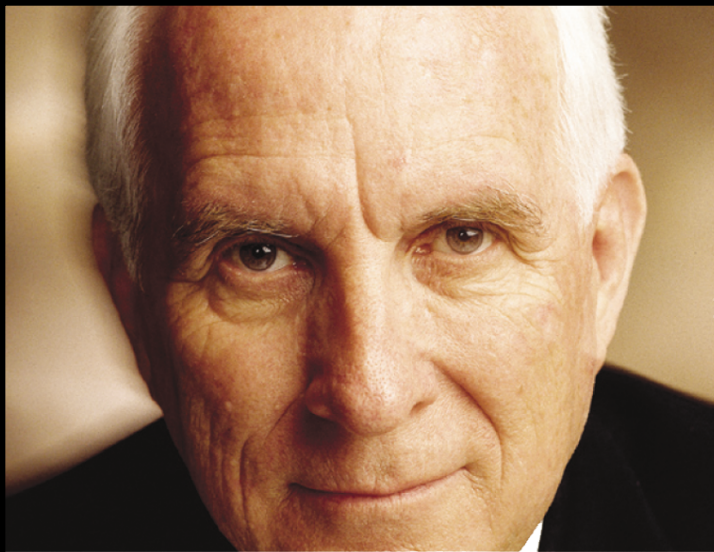


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